PIONEER
*The Art of Entertainment*

# Service Manual

ORDER NO.
**ARP2957**

## PROJECTION MONITOR RECEIVER

# SD-P62A3-K

- **Refer to the service manual ARP2952 for SD-P50A3-K and SD-P55A3-K.**

**THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).**

| Type | Model | Power Requirement | Remarks |
|---|---|---|---|
| | SD-P62A3-K | | |
| KUXC | ○ | AC120V | |

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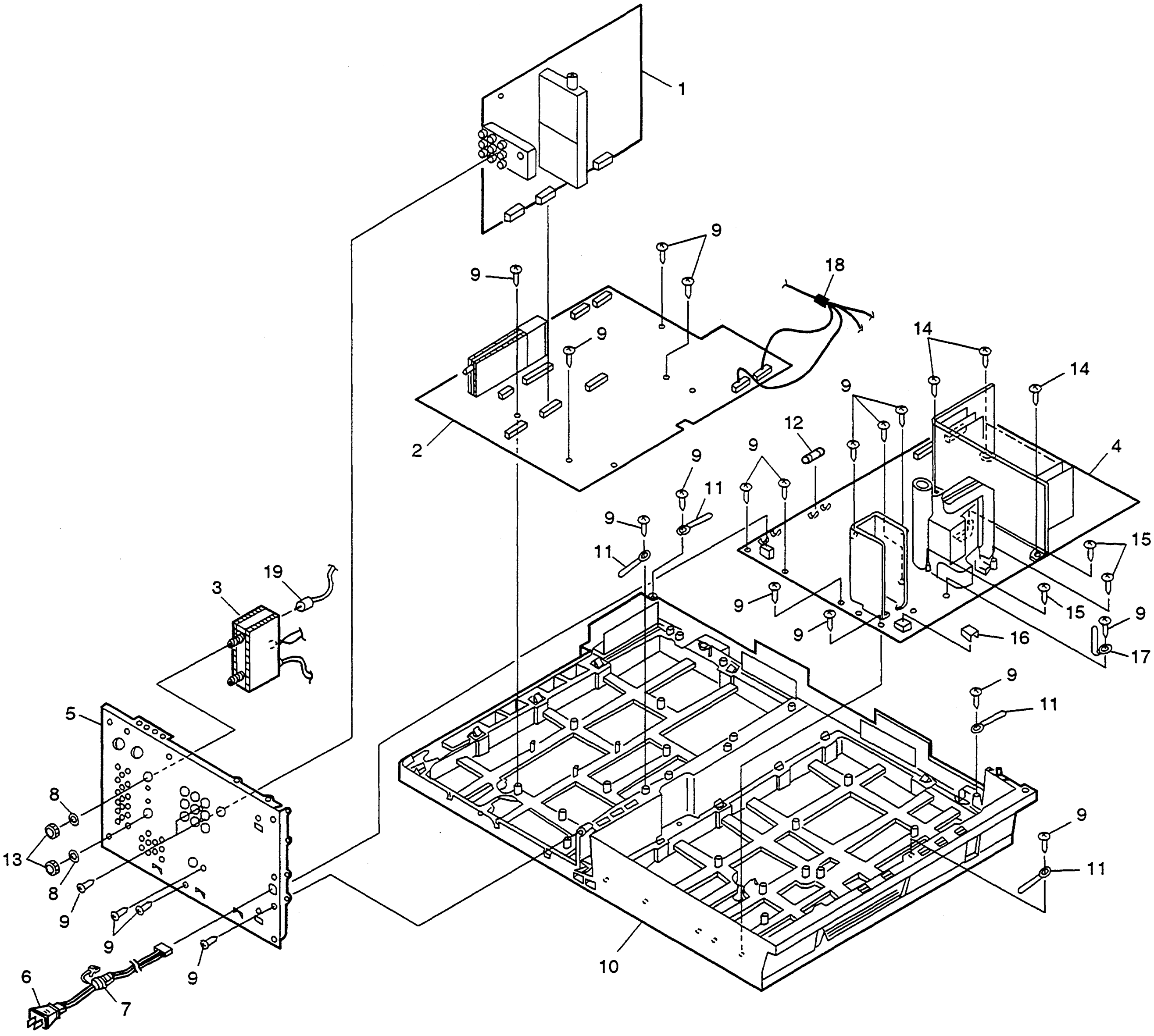
O - IZG APR. 1997 Printed in Belgium

## 2.9 CHASSIS BLOCK (2)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### Parts List

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | AV I/O Assy | AWZ6197 |
| | 2 | TUNER • VIDEO Assy | AWZ6185 |
| | 3 | RF Switch | AXF1088 |
| ☆ | 4 | POWER SUPPLY SERVICE Assy | AWV1615 |
| | 5 | Rear Panel | ANC2296 |
| ⚠ | 6 | AC Power Cord | BDG1019 |
| | 7 | Strain Relief | AEP-113 |
| | 8 | Bushing | AEC1661 |
| | 9 | Screw | BBZ30P140FZK |
| NSP | 10 | Chassis | AMA1011 |
| | 11 | Binder | AEP-215 |
| ⚠ | 12 | Fuse (FU102, 0.5A/125V) | AEK1010 |
| | 13 | Nut | ABN-087 |
| | 14 | Screw | ABZ30P120FZK |
| | 15 | Screw | VBZ30P200FMC |
| | 16 | Shield Case | ANK1510 |
| | 17 | Binder | AEC-826 |
| | 18 | Wire Harness (J8009) | ADX2345 |
| | 19 | Coaxial Cable | ADE1165 |

# 1. CONTRAST OF ELECTRICAL PARTS

*NOTES:*
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*
  *Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).*
  *560 Ω → $56 \times 10^1$ → 561 ........ RD1/4PU $\boxed{5}\boxed{6}\boxed{1}$ J*
  *47k Ω → $47 \times 10^3$ → 473 ........ RD1/4PU $\boxed{4}\boxed{7}\boxed{3}$ J*
  *0.5 Ω → R50 ........ RN2H $\boxed{R}\boxed{5}\boxed{0}$ K*
  *1 Ω → 1R0 ........ RS1P $\boxed{1}\boxed{R}\boxed{0}$ K*
  *Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).*
  *5.62k Ω → $562 \times 10^1$ → 5621 ........ RN1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ F*
- *Parts marked by ☆ are important parts which relate in X-rays radiation. If any of these parts need to be replaced, always replace with specified parts.*
- *Parts marked by × are important parts which relate in X-rays radiation. If a failure occurs in any of these parts, replace the printed circuit board assembly where the relevant part has already been adjusted as a working component. Do not replace the actual part itself. If any part marked by × is replaced, there is danger of being exposed to X-rays.*

## 1.1 CONTRAST OF ELECTRICAL PARTS

SD-P62A3-K/KUXC and SD-P50A3-K/KUXC have the same construction except for the following :

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | SD-P50A3-K/KUXC | SD-P62A3-K/KUXC | |
| | AMP ASSY | AWV1611 | AWV1626 | |
| | └ AMP ASSY | AWZ6190 | AWZ6204 | |

### AMP ASSY (AWZ6204)

AWZ6204 and AWZ6190 have the same construction except for the following :

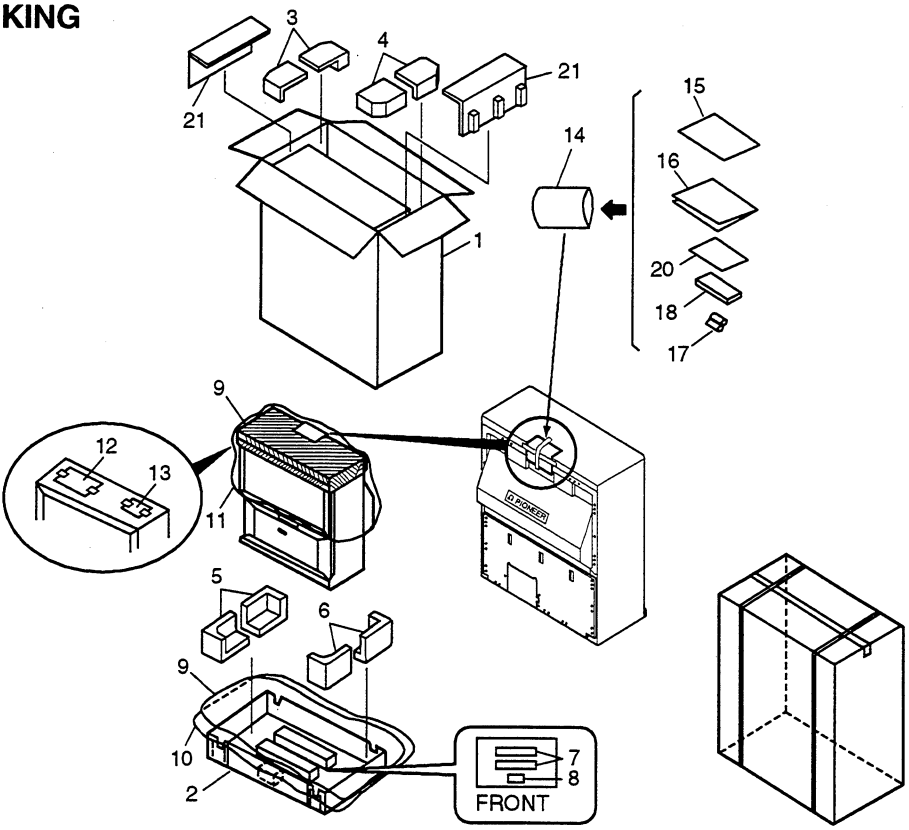
| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AWZ6190 | AWZ6204 | |
| | R1461, R1465 | RD1/4PU223J | Not used | |
| | C1419, C1428 | CEAS331M25 | CEAS102M25 | |
| | C1444, C1445 | CKCYB332K50 | Not used | |

# 2. EXPLODED VIEWS AND PARTS LIST

*NOTES: • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*

- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by ☆ are important parts which relate in X-rays radiation. If any of these parts need to be replaced, always replace with specified parts.*
- *Screws adjacent to ▼ mark on the product are used for disassembly.*

## 2.1 PACKING

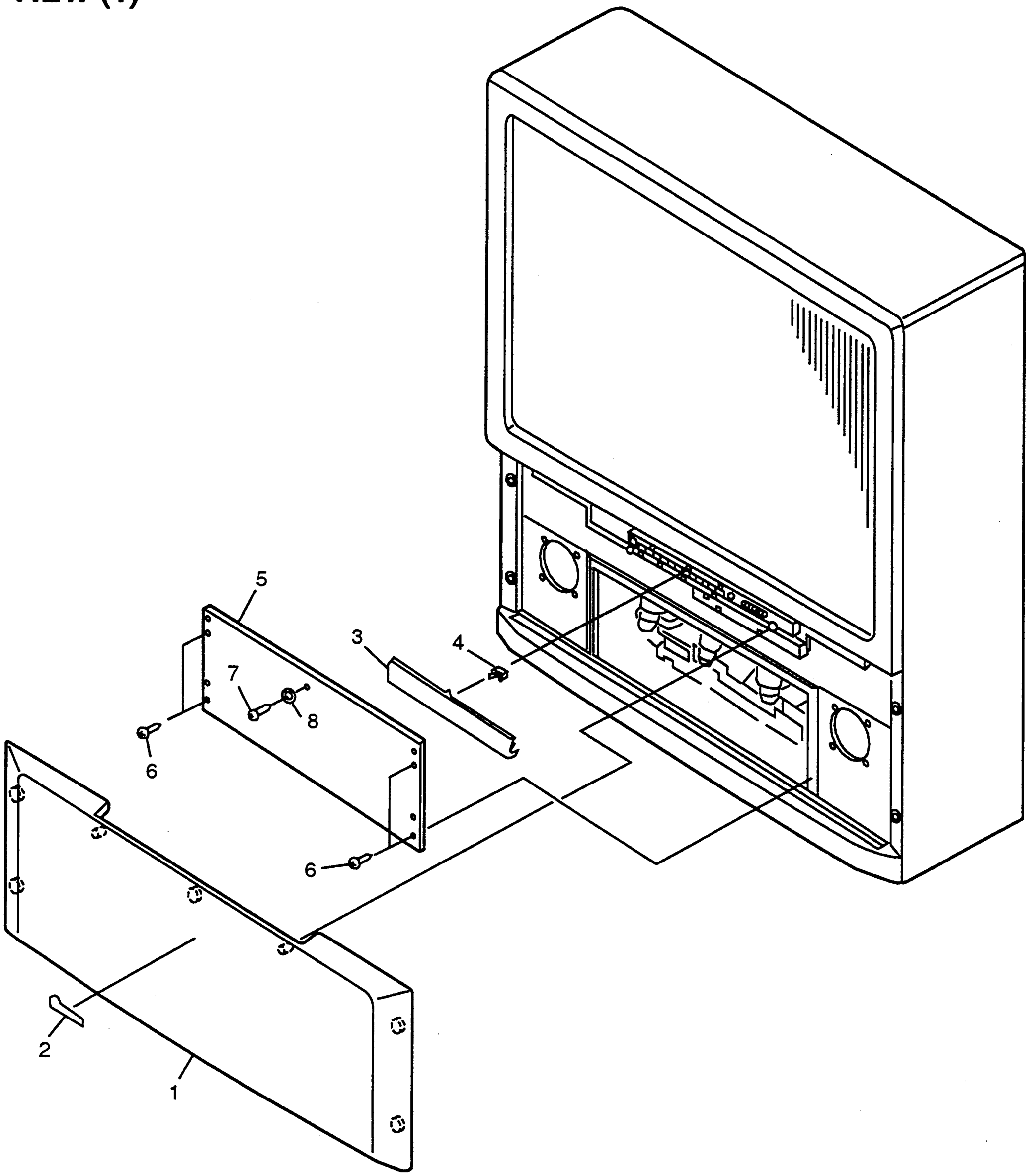


### Parts List

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | Upper Carton | AHD2886 |
| | 2 | Under Carton | AHD2889 |
| | 3 | Upper Pad L | AHA2171 |
| | 4 | Upper Pad R | AHA2172 |
| | 5 | Under Pad L | AHA2173 |
| | 6 | Under Pad R | AHA2174 |
| | 7 | Under Cushion | AHA2177 |
| | 8 | Under Cushion A | AHA2178 |
| NSP | 9 | Packing Sheet | AHG1269 |
| NSP | 10 | Vinyl Sheet | AHG1271 |
| NSP | 11 | Vinyl Sheet | AHG1267 |
| | 12 | CONVER Attention Card | ARM1120 |
| | 13 | Caster Caution Card | ARM1117 |
| NSP | 14 | Literature Bag | AHG1222 |
| NSP | 15 | Warranty Card | ARY1050 |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 16 | Operating Instructions (English) | ARB1510 |
| NSP | 17 | Alkaline Dry Cell Battery (LR6, AA) | AEX1018 |
| | 18 | Remote Control Unit (CU-SD103) | AXD1429 |
| | 19 | Battery Cover | AZA7031 |
| NSP | 20 | Caution Card | ARM1057 |
| | 21 | Clamp Spacer | AHB1185 |

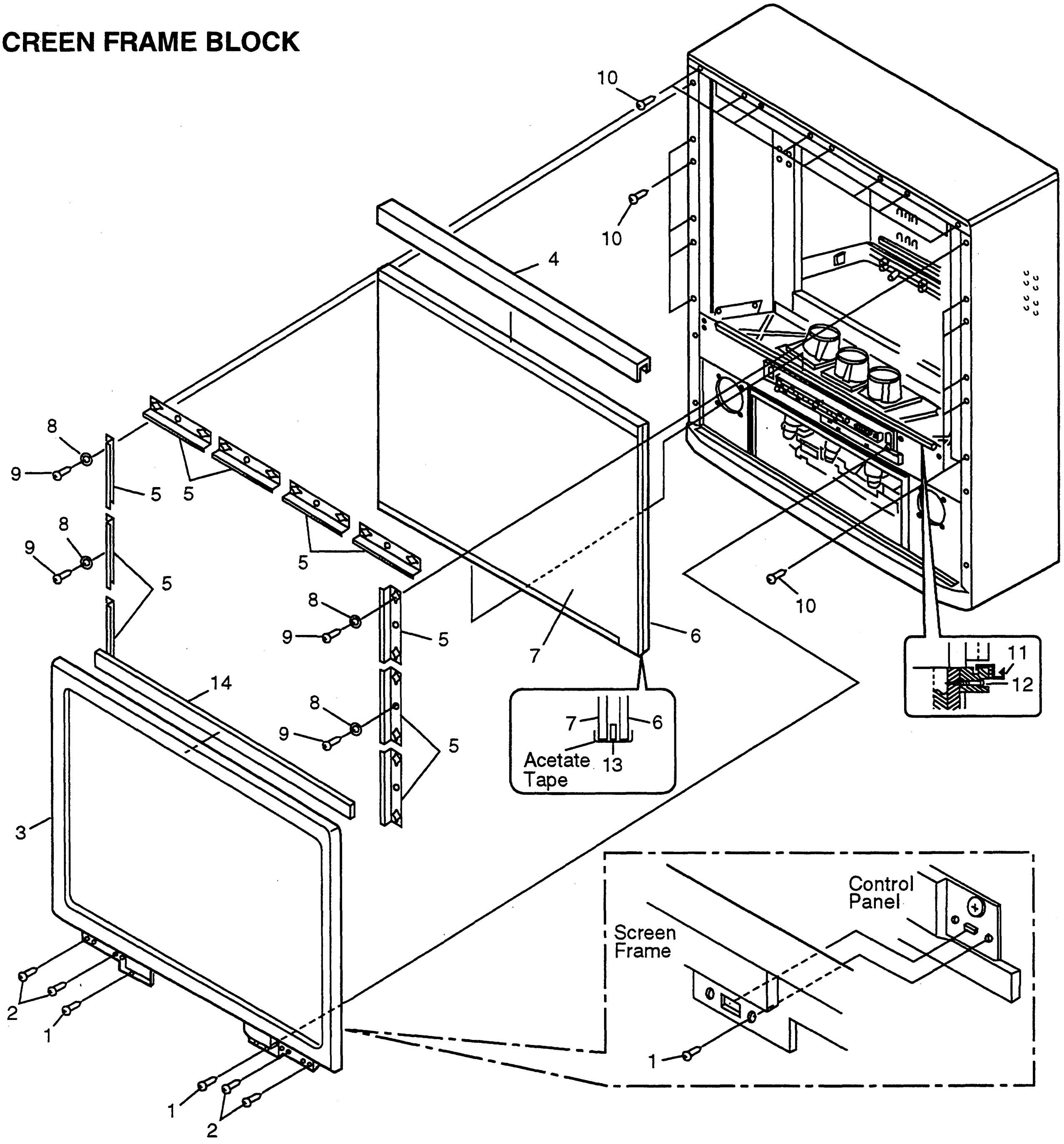
## 2.2 FRONT VIEW (1)



### Parts List

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | Grille | AMR2919 |
| | 2 | Badge | AAM1074 |
| | 3 | Door | AAN1433 |
| | 4 | Catcher | AEC1609 |
| | 5 | Blind Plate | AMM2787 |
| | 6 | Screw | ABA1241 |
| | 7 | Screw | BYC35P160FZK |
| | 8 | Magic Tape | AEC1394 |

## 2.3 SCREEN FRAME BLOCK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Acetate Tape
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Control Panel
Screen Frame
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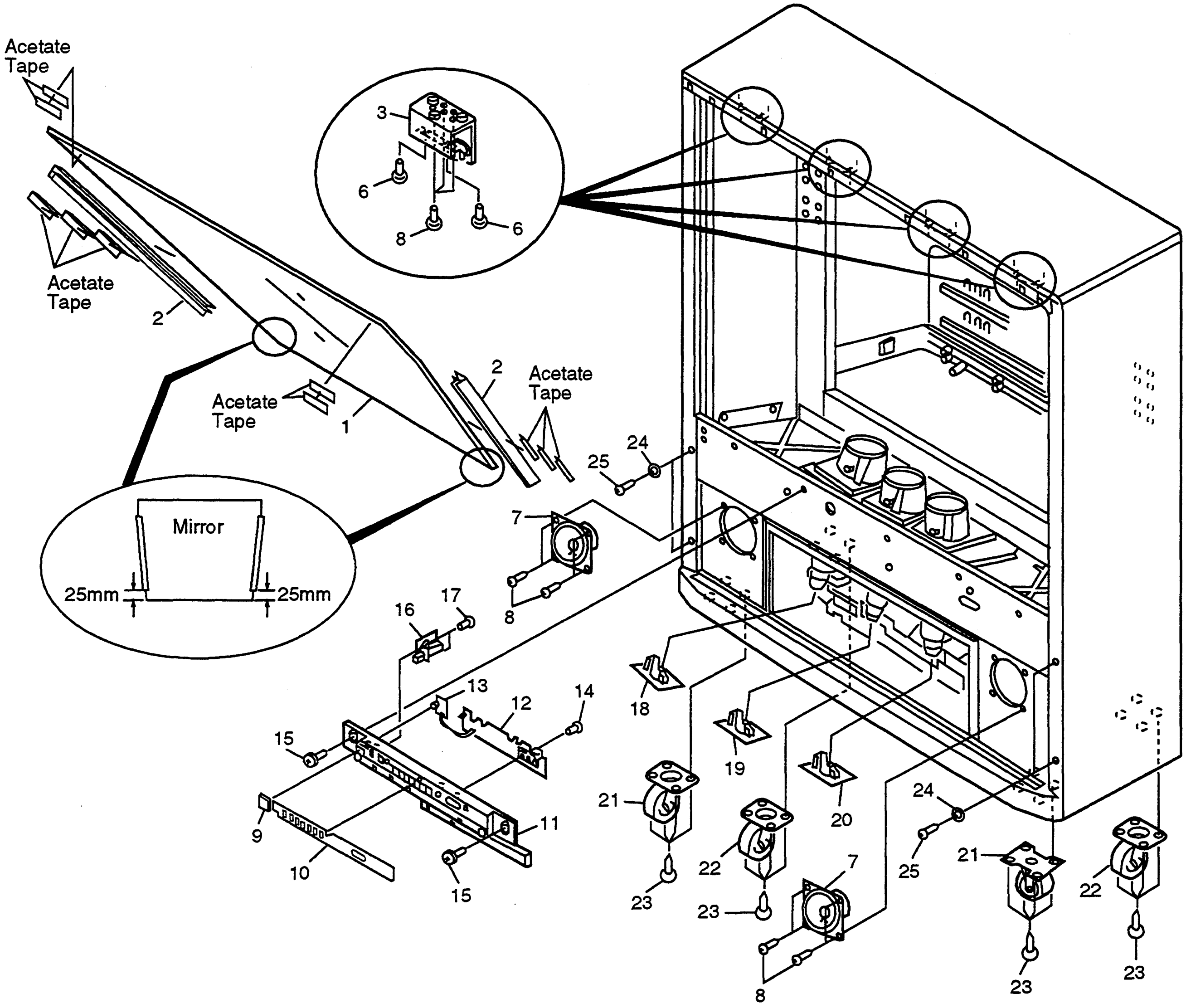
### Parts List

| Mark | No. | Description | Part No. | Mark | No. | Description | Part No. |
|---|---|---|---|---|---|---|---|
| | 1 | Screw | ABA1249 | | 8 | Magic Tape | AEC1394 |
| | 2 | Screw | ABA1239 | | 9 | Screw | BYC35P160FZK |
| | 3 | Screen Frame | AMB2601 | | 10 | Screw | ABA1240 |
| | 4 | Screen Holder (Top) | AAP1569 | | 11 | Screen Holder (Low) | AAP1572 |
| NSP | 5 | SH Holder | ANG2172 | | 12 | Screw | ABA1241 |
| | 6 | Fresnel | AMR2945 | | 13 | Spacer 62 | AEC1725 |
| | 7 | Lenticular Sheet | AMR2942 | NSP | 14 | Cushion A | AEC1712 |

## 2.4 FRONT VIEW (2)


Acetate Tape
Acetate Tape
Acetate Tape
Acetate Tape
Mirror
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25mm
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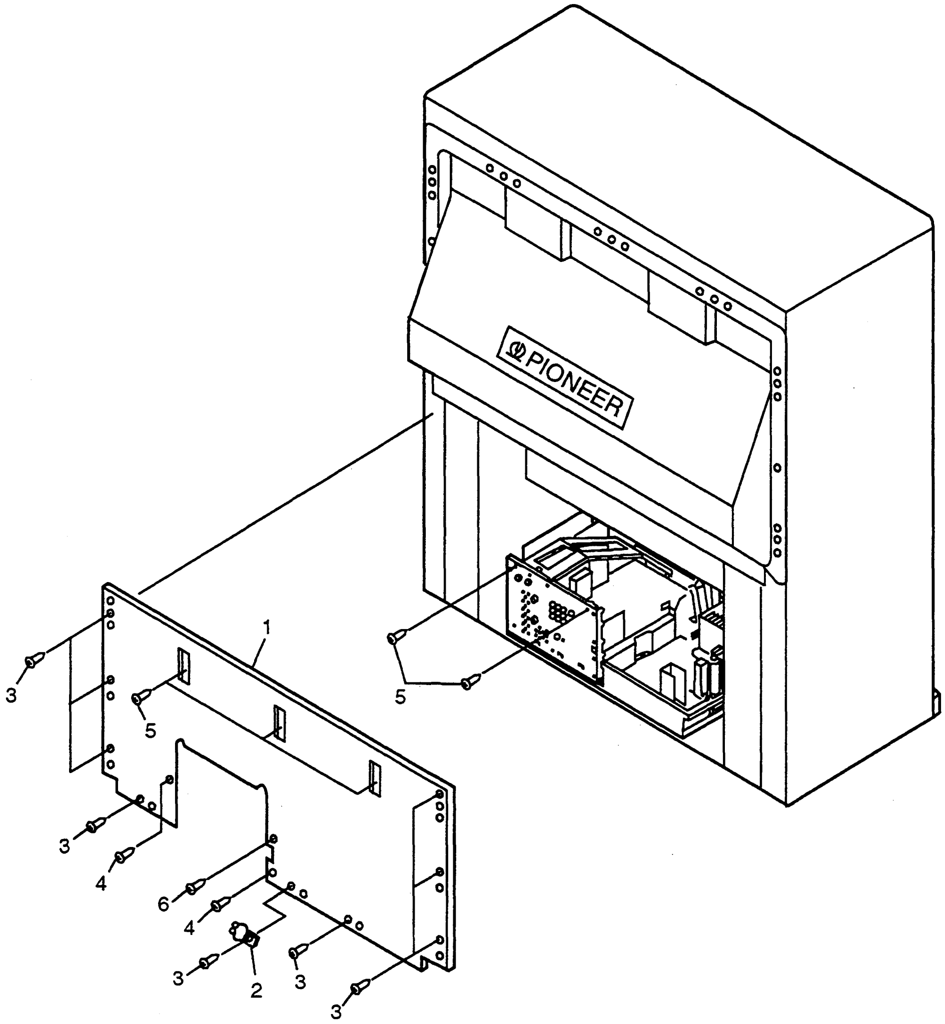
### Parts List

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | Mirror | AMR2939 |
| NSP | 2 | Mirror Frame | ANG2176 |
| | 3 | Mirror Holder | AMR2920 |
| | 4 | ••••• | |
| | 5 | ••••• | |
| | 6 | Screw | ABA1239 |
| | 7 | Speaker | APV1023 |
| | 8 | Screw | ABA1240 |
| | 9 | Indicator Panel | AAK2687 |
| | 10 | Control Sheet | AAK2686 |
| | 11 | Control Panel | AMB2602 |
| | 12 | Front Control Assy | AWZ6186 |
| | 13 | Indicator Assy | AWZ6187 |
| | 14 | Screw | ABZ30P120FZK |
| | 15 | Screw | ABA1234 |
| | 16 | POWER SW Assy | AWZ6188 |
| | 17 | Screw | BPZ30P120FMC |
| | 18 | R. CRT AMP Assy | AWZ6191 |
| | 19 | G. CRT AMP Assy | AWZ6192 |
| | 20 | B. CRT AMP Assy | AWZ6193 |
| | 21 | Caster (Front) | AMR2863 |
| | 22 | Caster (Rear) | AMR2547 |
| | 23 | Screw | ABA1126 |
| | 24 | Magic Tape | AEC1394 |
| | 25 | Screw | BYC35P160FZB |

## 2.5 REAR VIEW (1)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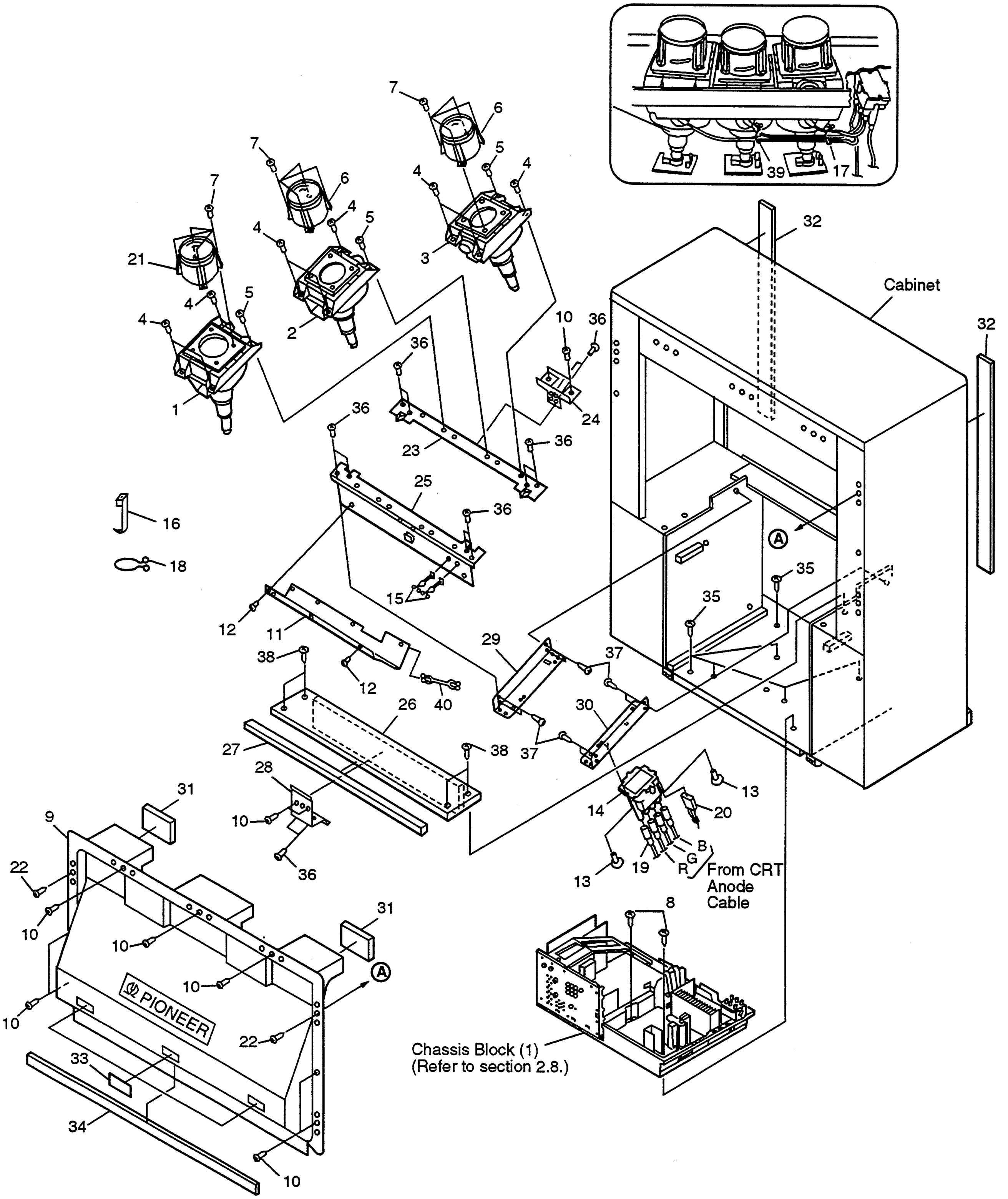
### Parts List

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | Rear Cover | AMM2790 |
| NSP | 2 | Purse Lock | AEC1263 |
| | 3 | Screw | ABA1240 |
| | 4 | Screw | ABA1235 |
| | 5 | Screw | ABA1149 |
| | 6 | Screw | ABZ30P120FZK |

## 2.6 REAR VIEW (2)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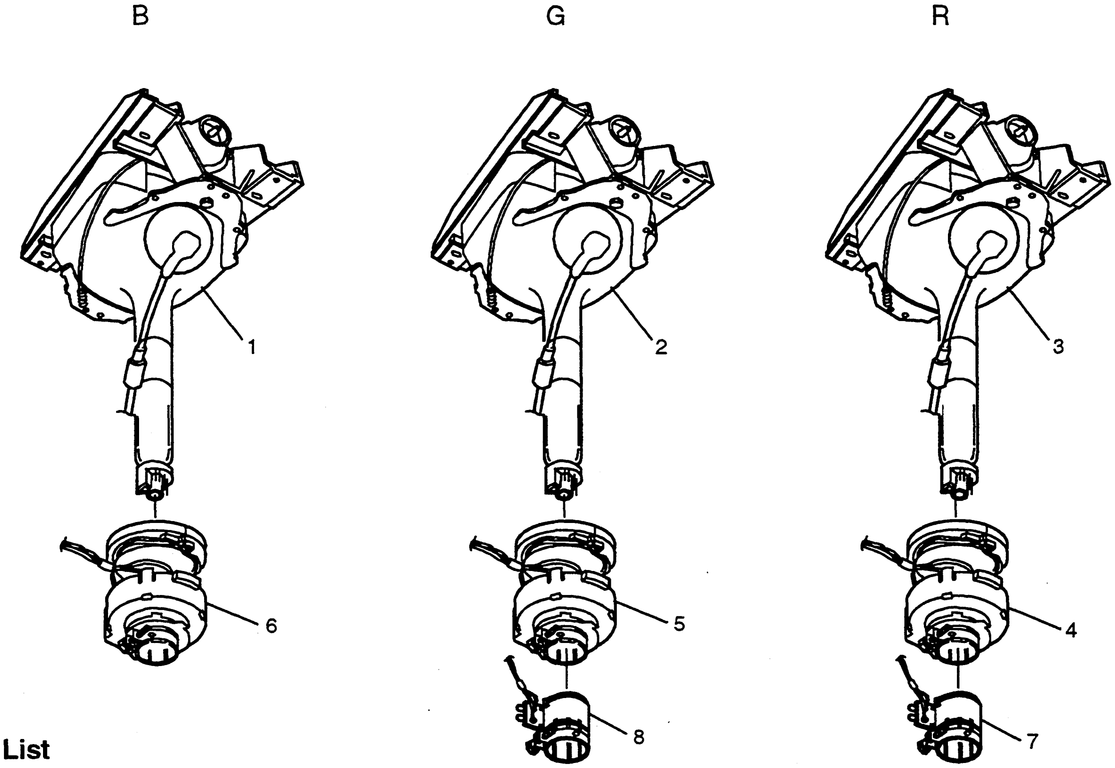
Chassis Block (1)
(Refer to section 2.8.)

### Parts List

| Mark | No. | Description | Part No. |
|---|---|---|---|
| ☆ | 1 | CRT Service Assy B | AWY1393 |
| ☆ | 2 | CRT Service Assy G | AWY1388 |
| ☆ | 3 | CRT Service Assy R | AWY1392 |
|  | 4 | Screw | ABA1168 |
|  | 5 | Screw | FBT40P120FZK |
| ☆ | 6 | Lens Assy | AMR2833 |
|  | 7 | Screw | AMZ40P080FZK |
|  | 8 | Screw | BYC40P350FZK |
|  | 9 | Mirror Case | AME2296 |
|  | 10 | Screw | ABA1240 |
| NSP | 11 | Tray | AMR2936 |
|  | 12 | Screw | ABZ30P120FZK |
|  | 13 | Screw | BBZ40P120FZK |
| ⚠NSP | 14 | HV Distributor | AXW1046 |
| NSP | 15 | Lead Clamper M | AEC1611 |
|  | 16 | Binder | AEC-093 |
|  | 17 | Purse Lock | AEC1540 |
| NSP | 18 | Purse Lock L | AEC1422 |
|  | 19 | HV Cable (J26) | ADY1032 |
|  | 20 | HV Return Wire (J27) | ADX2338 |
| ☆ | 21 | Lens Assy | AMR2948 |
|  | 22 | Screw | PYC40T140FZB |
| NSP | 23 | CRT Front Frame | ANA1541 |
| NSP | 24 | CRT Front Holder | ANG2118 |
| NSP | 25 | CRT Rear Frame | ANA1542 |
| NSP | 26 | Rear Cover Panel | AMM2788 |
|  | 27 | Rear Cover Cushion | AEC1718 |
| NSP | 28 | CRT Rear Holder | ANG2119 |
| NSP | 29 | CRT Stand Holder R | ANA1497 |
| NSP | 30 | CRT Stand Holder L | ANA1496 |
| NSP | 31 | Mirror Cushion | AEC1701 |
|  | 32 | Screen Cushion | AEC1702 |
|  | 33 | Blind Sheet | AEC1622 |
|  | 34 | Mirror Cushion | AEC1627 |
|  | 35 | Screw | ABA1234 |
|  | 36 | Screw | ACZ40P080FMC |
|  | 37 | Screw | PMB50P250FZB |
|  | 38 | Screw | ABA1241 |
| NSP | 39 | Purse Lock S | AEC1261 |
|  | 40 | Cable Clip | AEC1708 |

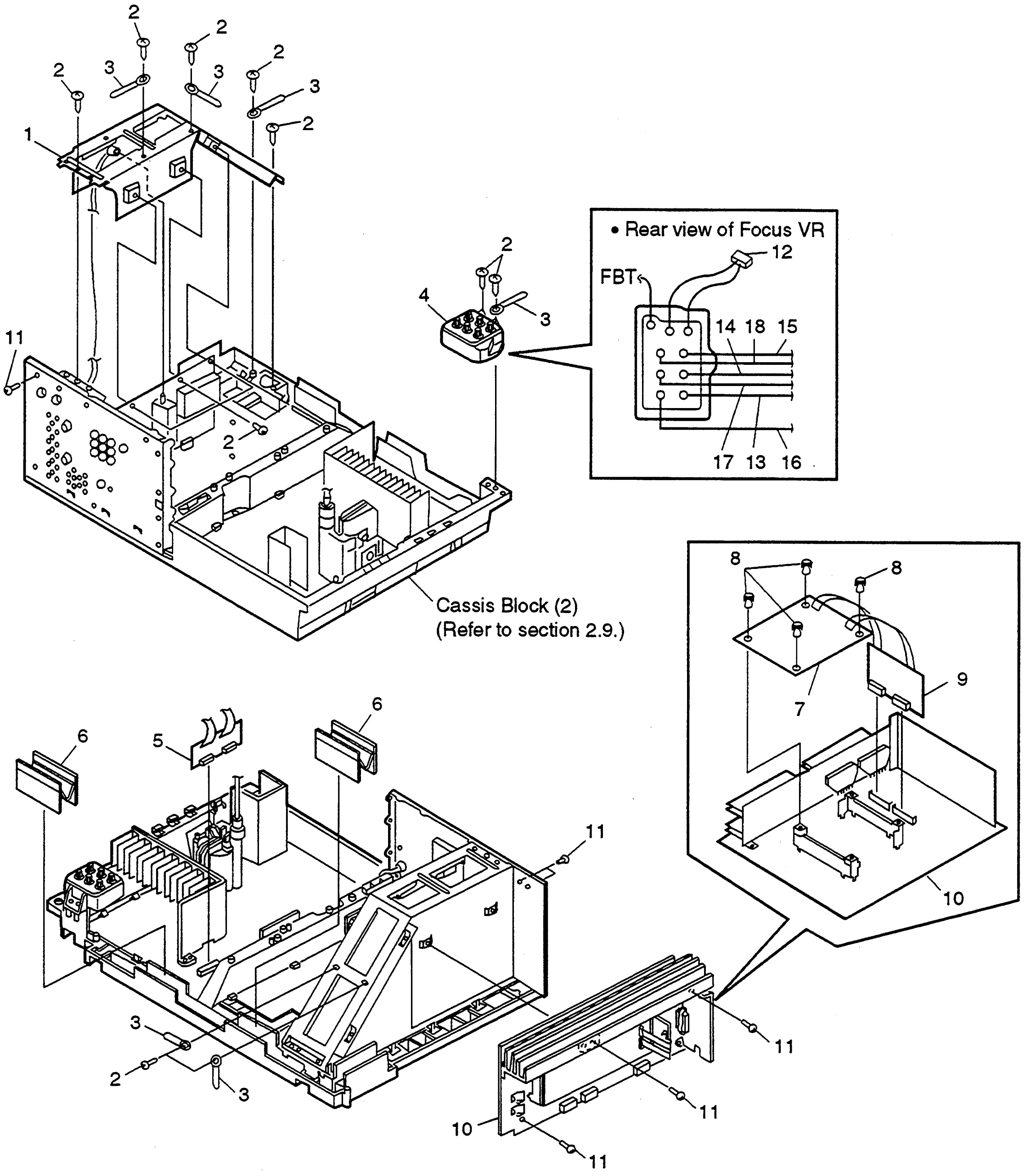
## 2.7 CRT BLOCK



### Parts List

| Mark | No. | Description | Part No. |
|---|---|---|---|
| ☆ | 1 | CRT Service Assy B | AWY1393 |
| ☆ | 2 | CRT Service Assy G | AWY1388 |
| ☆ | 3 | CRT Service Assy R | AWY1392 |
| ⚠ | 4 | Deflection Yoke (L2) | ATL1130 |
| ⚠ | 5 | Deflection Yoke (L3) | ATL1130 |
| ⚠ | 6 | Deflection Yoke (L4) | ATL1130 |
| ⚠ | 7 | VM Coil (L5) | ATL1133 |
| ⚠ | 8 | VM Coil (L6) | ATL1133 |

## 2.8 CHASSIS BLOCK (1)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• Rear view of Focus VR
FBT
Cassis Block (2)
(Refer to section 2.9.)

### Parts List

| Mark | No. | Description | Part No. |
|---|---|---|---|
| NSP | 1 | PCB Frame | ANG2141 |
| | 2 | Screw | BBZ30P140FZK |
| | 3 | Binder | AEP-215 |
| ⚠ | 4 | Focus VR (VR1) | ACX1096 |
| | 5 | CONNECTOR A Assy | AWZ6189 |
| | 6 | Wire Holder | AMR2832 |
| | 7 | CONVER CONTROL Assy | AWZ6195 |
| | 8 | Rivet | AEC-441 |
| | 9 | CONNECTOR B Assy | AWZ6196 |
| | 10 | AMP Assy | AWZ6204 |
| | 11 | Screw | ABZ30P120FZK |
| | 12 | 4P Housing Wire (J11) | ADX2230 |
| | 13 | 1P Lead Wire (J4) | ADX2289 |
| | 14 | 1P Lead Wire (J5) | ADX2290 |
| | 15 | 1P Lead Wire (J6) | ADX2291 |
| | 16 | 1P Lead Wire (J7) | ADX2231 |
| | 17 | 1P Lead Wire (J8) | ADX2232 |
| | 18 | 1P Lead Wire (J9) | ADX2233 |

## ■ PM0011AS ( CONVER CONTROL ASSY : IC2301 - IC2303)

**• Digital / Analog Convergence Correction IC**

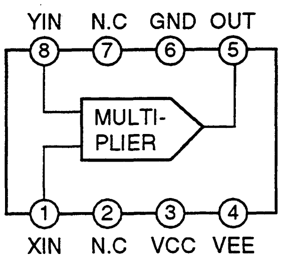
**• Pin Function**

| No. | Pin Name | I/O | Function | No. | Pin Name | I/O | Function |
|---|---|---|---|---|---|---|---|
| 1 | INH1 | I | Signal input for H 1st | 22 | MPYIN2 | I | Multiplicator input 2 |
| 2 | INH2 | I | Signal input for H 2nd | 23 | MPYIN1 | I | Multiplicator input 1 |
| 3 | INH3 | I | Signal input for H 3rd | 24 | MPYOUT | O | Multiplicator output |
| 4 | INH4 | I | Signal input for H 4th | 25 | VOUT3 | O | DA output 3 for V |
| 5 | INX1 | I | Signal input for H 5th (for business) | 26 | VOUT2 | O | DA output 2 for V |
| 6 | INX2 | I | Signal input for H 6th (for business) | 27 | VOUT1 | O | DA output 1 for V |
| 7 | ICADDR | I | Address input | 28 | HOUT3 | O | DA output 3 for H |
| 8 | HV | — | H, V selection | 29 | HOUT2 | O | DA output 2 for H |
| 9 | VEE | — | -5V power supply | 30 | HOUT1 | O | DA output 1 for H |
| 10 | CLKB | I | Clock input (internal connection with pin 34) | 31 | CEB | — | Enable (internal connection with pin 13) |
| 11 | MUTEB | I | Mute input (internal connection with pin 33)<br>MUTE=0V | 32 | DATA | — | Data (internal connection with pin 12) |
| 12 | DATA | I | Data input (internal connection with pin 32) | 33 | MUTEB | I | Mute input (internal connection with pin 11)<br>MUTE=0V |
| 13 | CEB | I | Enable input (internal connection with pin 31) | 34 | CLKB | I | Clock input (internal connection with pin 10) |
| 14 | INJ | — | Injector Connect a 2kΩ resistor between this pin and VCC (+5V). | 35 | PCSEL | — | Mode switch<br>For business : -5V , For generally : 0V |
| 15 | INV1 | I | Signal input for V 1st | 36 | A2INP | I | OP amp 2 + input |
| 16 | INV2 | I | Signal input for V 2nd | 37 | A2INM | I | OP amp 2 – input |
| 17 | INV3 | I | Signal input for V 3rd | 38 | A1INP | I | OP amp 1 + input |
| 18 | INV4 | I | Signal input for V 4th | 39 | A1INM | I | OP amp 1 – input |
| 19 | INX3 | I | Signal input for V 5th (for business) | 40 | A1OUT | O | OP amp 1 output |
| 20 | INX4 | I | Signal input for V 6th (for business) | 41 | A2OUT | O | OP amp 2 output |
| 21 | VCC | — | +5V power supply | 42 | GND | — | Ground |

## ■ CA0005AM ( CONVER CONTROL ASSY : IC2309)

**• Single 2 Inputs Analog Multiplicator IC**

**• Block Diagram**



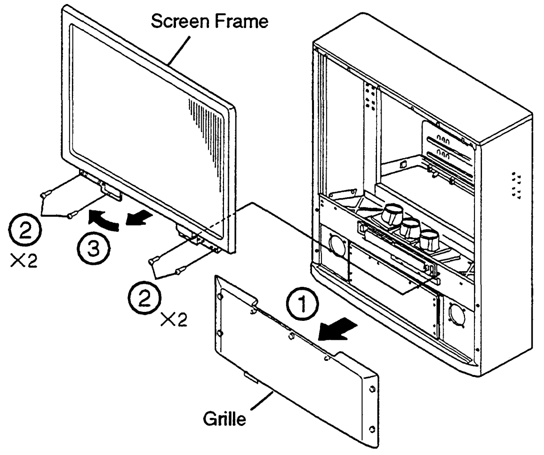
**• Pin Function**

| No. | Pin Name | I/O | Function |
|---|---|---|---|
| 1 | XIN | I | X input |
| 2 | N.C | — | Non connection |
| 3 | VCC | — | Power supply |
| 4 | VEE | — | Power supply |
| 5 | OUT | O | Output |
| 6 | GND | — | Ground |
| 7 | N.C | — | Non connection |
| 8 | YIN | I | Y input |

## 7.2 DISASSEMBLY / ASSEMBLY

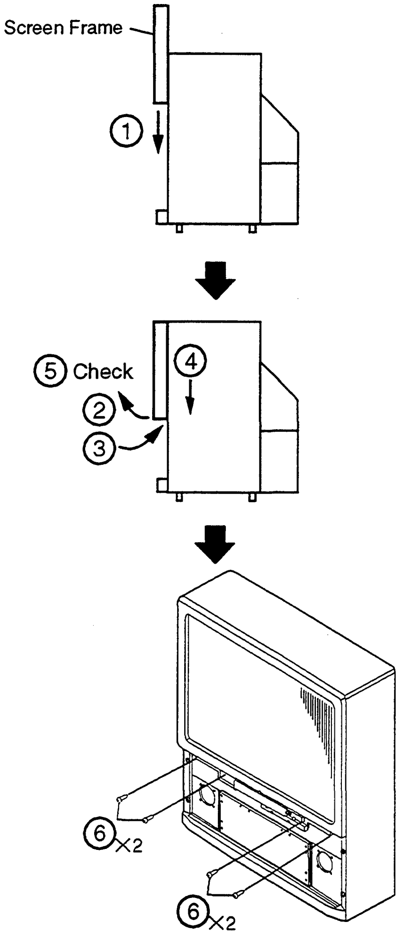
### 7.2.1 Disassembling the Screen Frame

- Disassembly : ① → ② → ③


Screen Frame
②
×2
③
②
×2
①
Grille

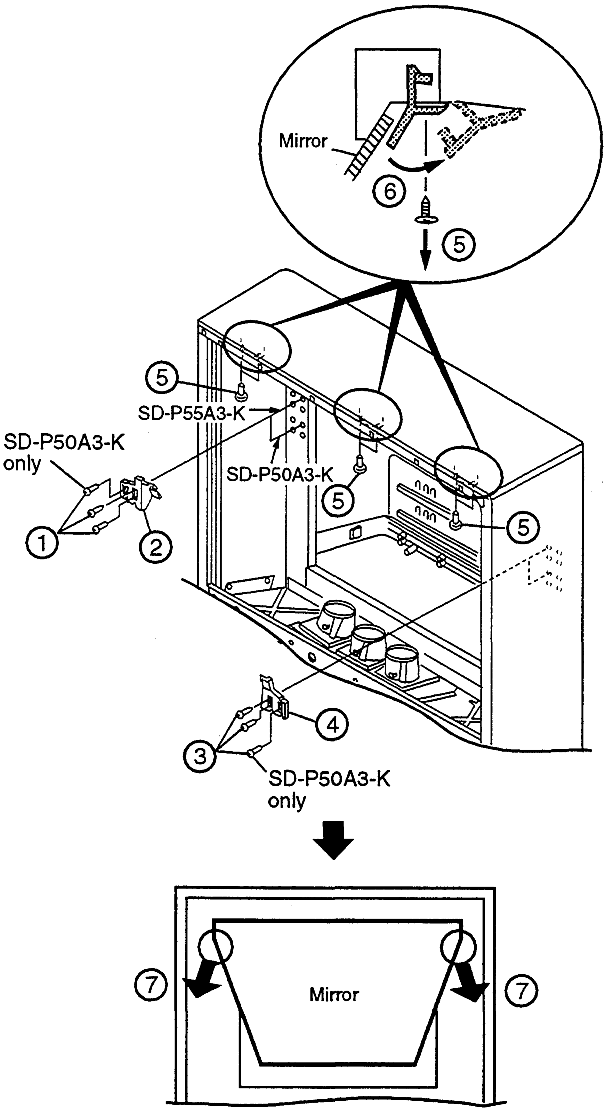
### 7.2.2 Assembling the Screen Frame

- Assembly : ① → ② → ③→ ④ → ⑤→ ⑥


Screen Frame
①
⑤ Check
④
②
③
⑥×2
⑥×2

### 7.2.3 Mirror

- Disassembly : ①→②→③→④→⑤→⑥→⑦
- Assembly : ⑦→⑥→⑤→④→③→②→①


Mirror
⑥
⑤
⑤
SD-P55A3-K
SD-P50A3-K only
SD-P50A3-K
⑤
⑤
①
②
④
③
SD-P50A3-K only
⑦
Mirror
⑦

## 7.3 REPLACEMENT

### 7.3.1 CRT Assy

(1) Remove four screws ① to remove the CRT Assy, and remove the R, G or B CRT AMP Assy, VM Coil and Deflection Yoke ( ② ).
(2) Unhook two Purse Locks ③ from Anode Cables.
(3) Remove two screws ④ to remove the HV Distributor and pull out the Anode Cable ( ⑤ ).

**Caution** :Refer to caution contents written with "Caution at Removing the Anode Cable From the HV Distributor" on page 115.

(4) Install the replacement CRT Assy to the CRT Stand and assemble the Deflection Yoke, VM Coil and R, G or B CRT AMP Assy.
(5) Plug the Anode Cable into the HV Distributor and assemble the HV Distributor to the CRT Stand.
(6) Perform the Anode Cable wiring.

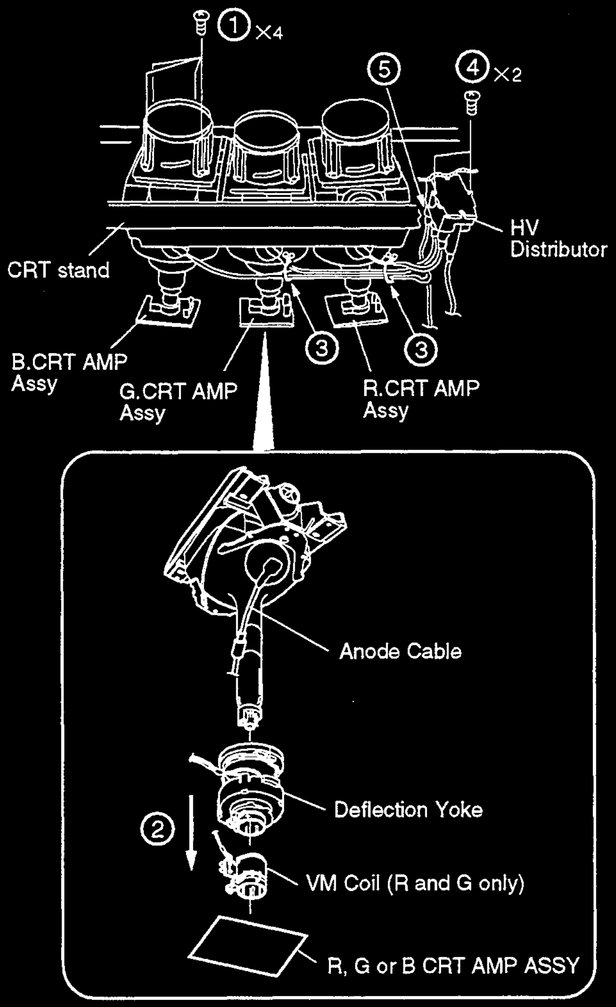

①×4
⑤
④×2
HV Distributor
CRT stand
③
③
B.CRT AMP Assy
G.CRT AMP Assy
R.CRT AMP Assy
Anode Cable
Deflection Yoke
②
VM Coil (R and G only)
R, G or B CRT AMP ASSY

Fig. 1 Replace the CRT Assy

### 7.3.2 POWER SUPPLY SERVICE Assy

The POWER SUPPLY SERVICE Assy seems to be Fig. 2 is constituted.

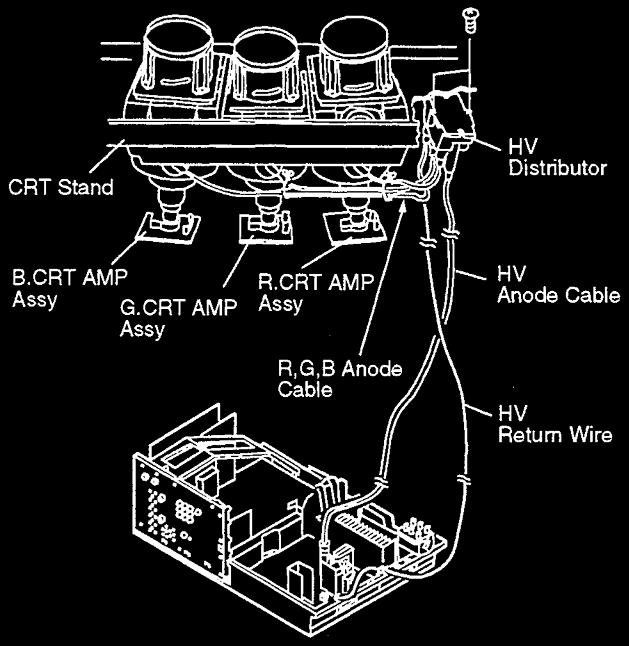

CRT Stand
HV Distributor
B.CRT AMP Assy
G.CRT AMP Assy
R.CRT AMP Assy
HV Anode Cable
R,G,B Anode Cable
HV Return Wire

Fig. 2 Replace the POWER SUPPLY SERVICE Assy

When replacing the POWER SUPPLY SERVICE Assy, replace the POWER SUPPLY Assy and HV Distributor together.

(1) Remove fixing screws which chassis is fixed in the cabinet from rear side of the cabinet and pull out the chassis.
(2) Remove two screws to remove the HV Distributor in the CRT Stand.
(3) Solve the wiring of periphery of the POWER SUPPLY Assy, disconnect cords, lead wires and connectors etc. connected to the POWER SUPPLY Assy.
(4) Remove R, G and B Anode Cables from the HV Distributor.
(5) Replace the POWER SUPPLY Assy and fixes it in the chassis.
(6) Connect cords, lead wires and connector etc. to the POWER SUPPLY Assy and does wiring.
(7) Inserts Anode Cable etc. avoided with step (4) in the HV Distributor.
(8) Fixes the HV Distributor in the CRT Stand.
(9) Fixes the chassis in the cabinet.

**• Caution at Removing the Anode Cable From the HV Distributor**

Anode Cable between the Flyback Transformer (FBT) is connected to the CRT through the HV Distributor.
When replacing the CRT or POWER SUPPLY SERVICE Assy, your hands may be injured when pull out direct Anode Cable from HV Distributor fixed in the CRT Stand.
When removing the R, G and B Anode Cables, HV Anode Cable etc. from the HV Distributor, remove HV Distributor from the CRT Stand, and remove it after putting it in the place where is flat, became stable.

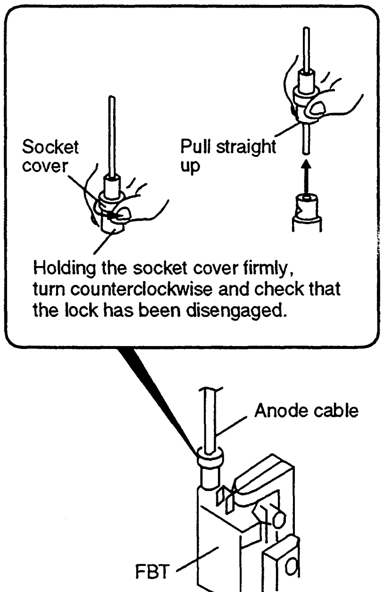
## 7.4 MEASURING METHOD

Disconnect the FBT anode cable as shown in Fig. 3.
Measure at the point where the cable enters the FBT.

**Caution** : Take extra precaution when measuring the voltage. High voltage are also present in surrounding circuit boards. (CRT AMP Assy, POWER SUPPLY SERVICE Assy).

**SERVICEMAN WARNING**

Before removing the Anode Cable. turn off the power, unplug the AC plug and let the unit discharge for more than 1 minute.



Holding the socket cover firmly, turn counterclockwise and check that the lock has been disengaged.

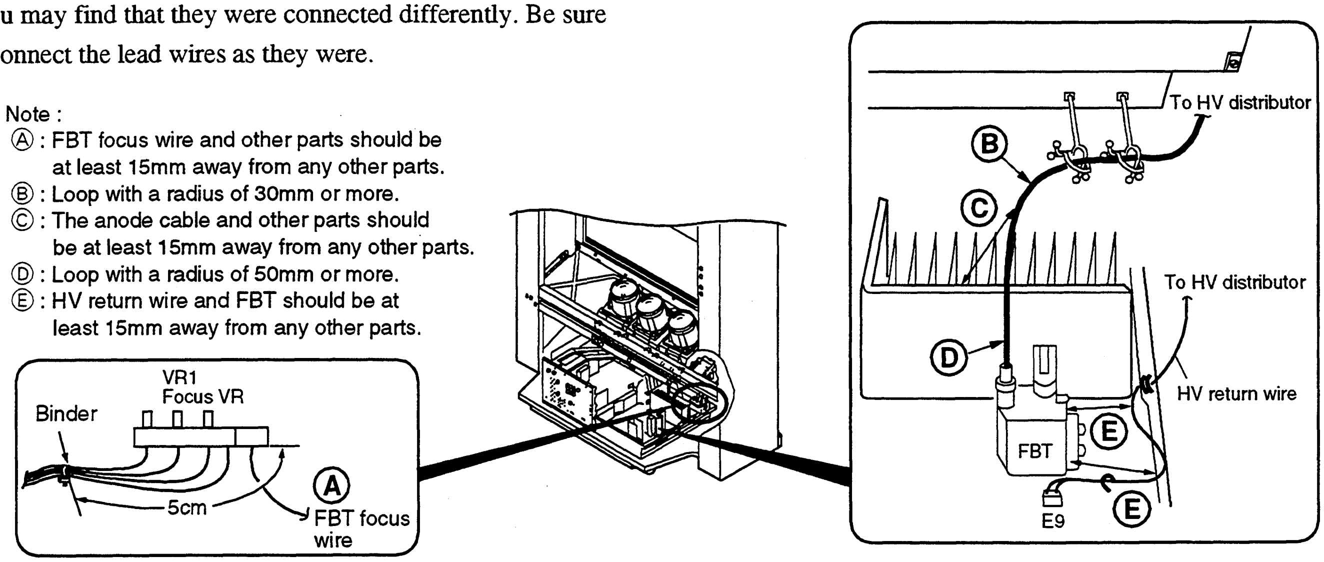
Note :
When reconnecting the cable, proceed in the reverse order. After reconnecting, tug on the cable to check that it is secure.

Fig. 3

## 7.5 WIRING DIAGRAM

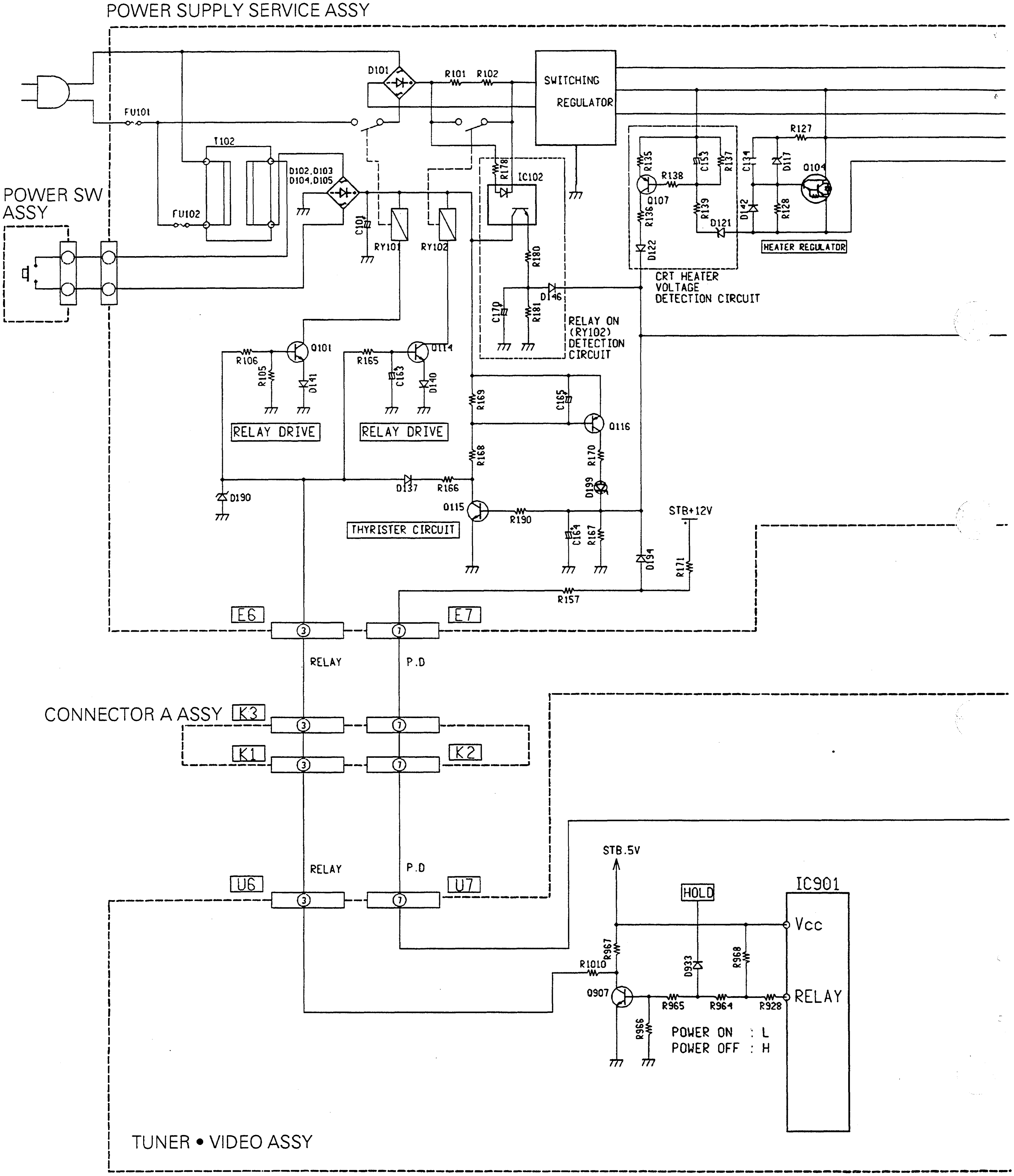
Reconnect any disconnected lead wires of the Projection monitor receiver.
The important points for connection of the lead wires are as shown below.
You may find that they were connected differently. Be sure reconnect the lead wires as they were.

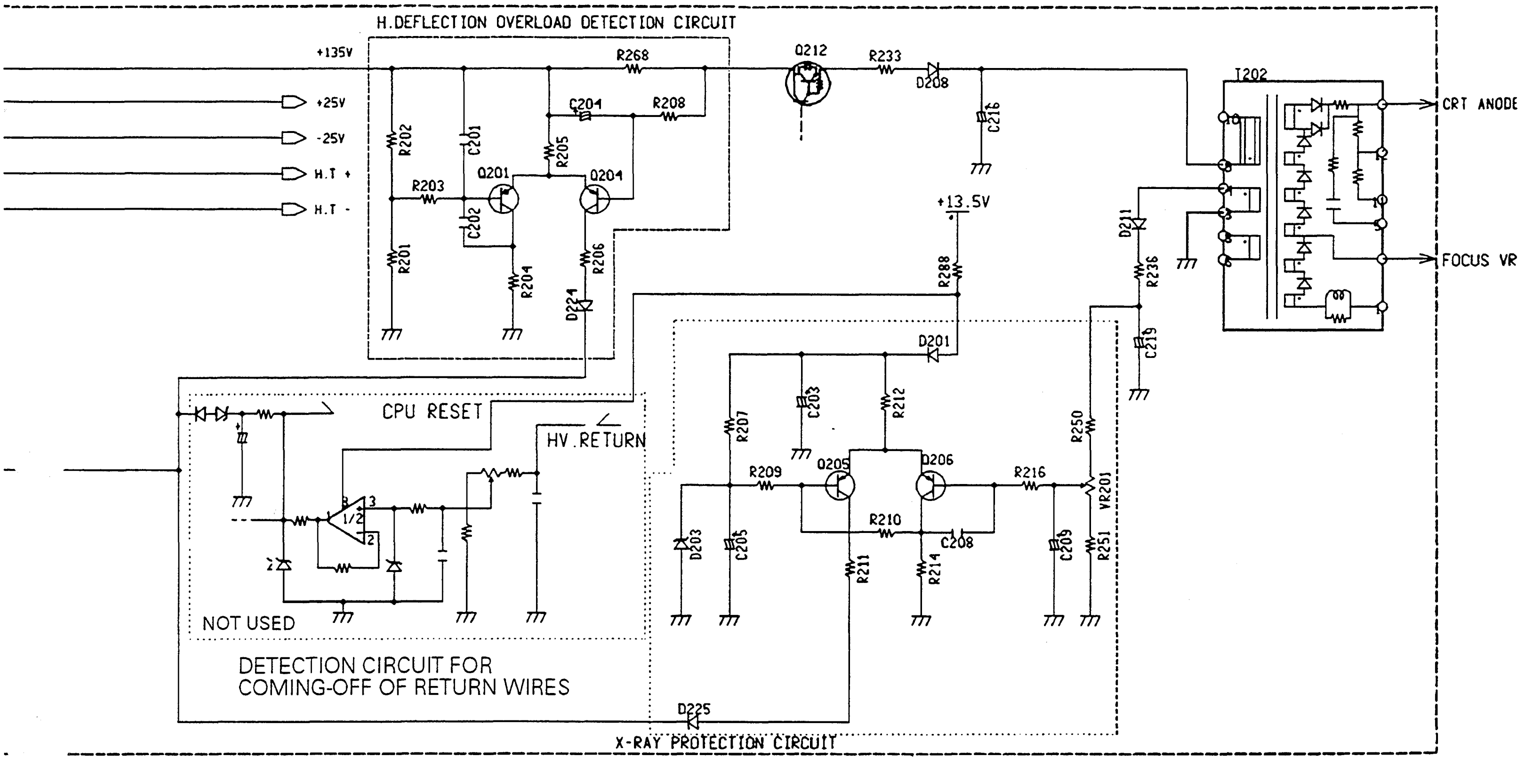
Note :
Ⓐ : FBT focus wire and other parts should be at least 15mm away from any other parts.
Ⓑ : Loop with a radius of 30mm or more.
Ⓒ : The anode cable and other parts should be at least 15mm away from any other parts.
Ⓓ : Loop with a radius of 50mm or more.
Ⓔ : HV return wire and FBT should be at least 15mm away from any other parts.



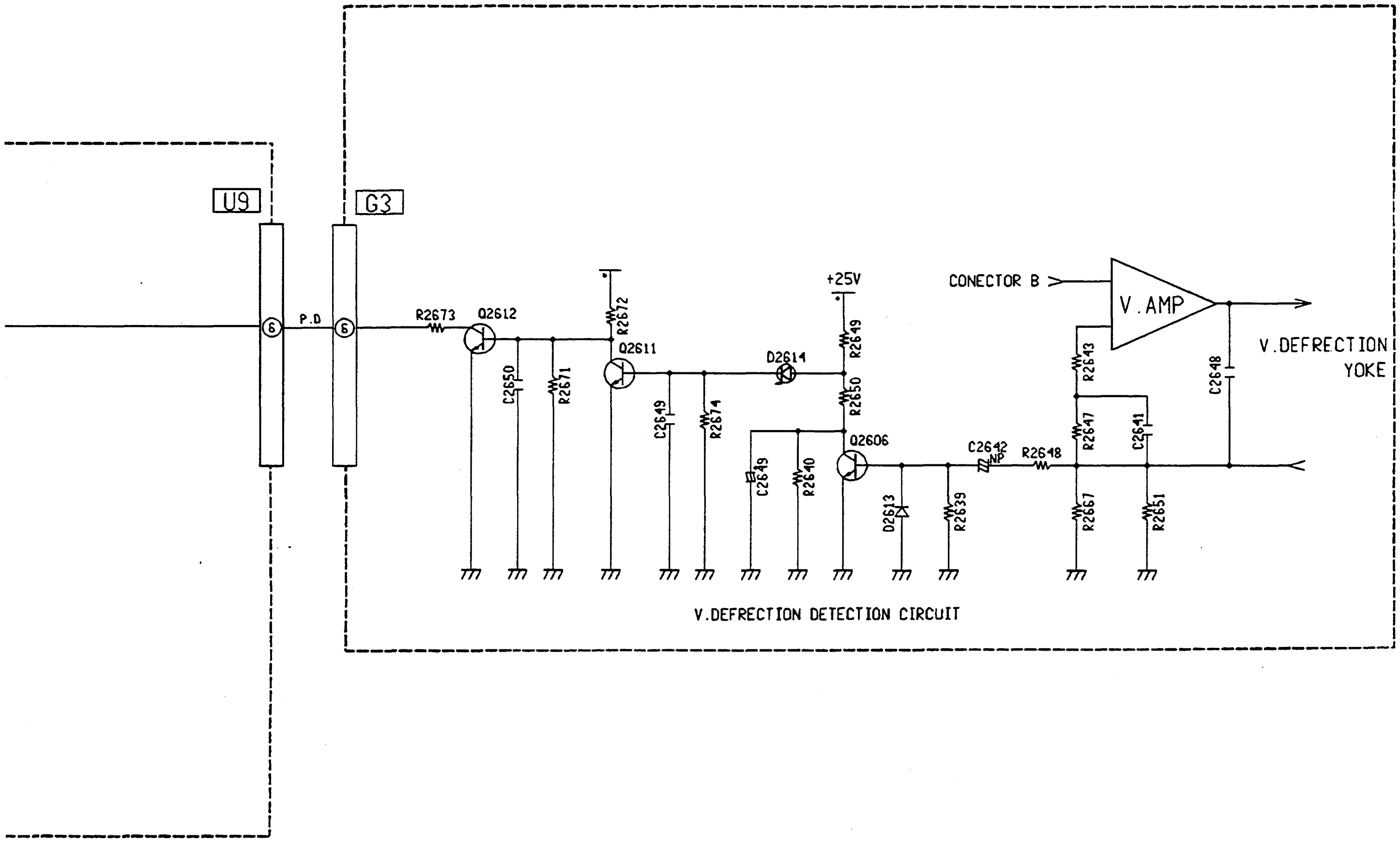
## 7.6 BLOCK DIAGRAM

### 7.6.1 PROTECTION BLOCK

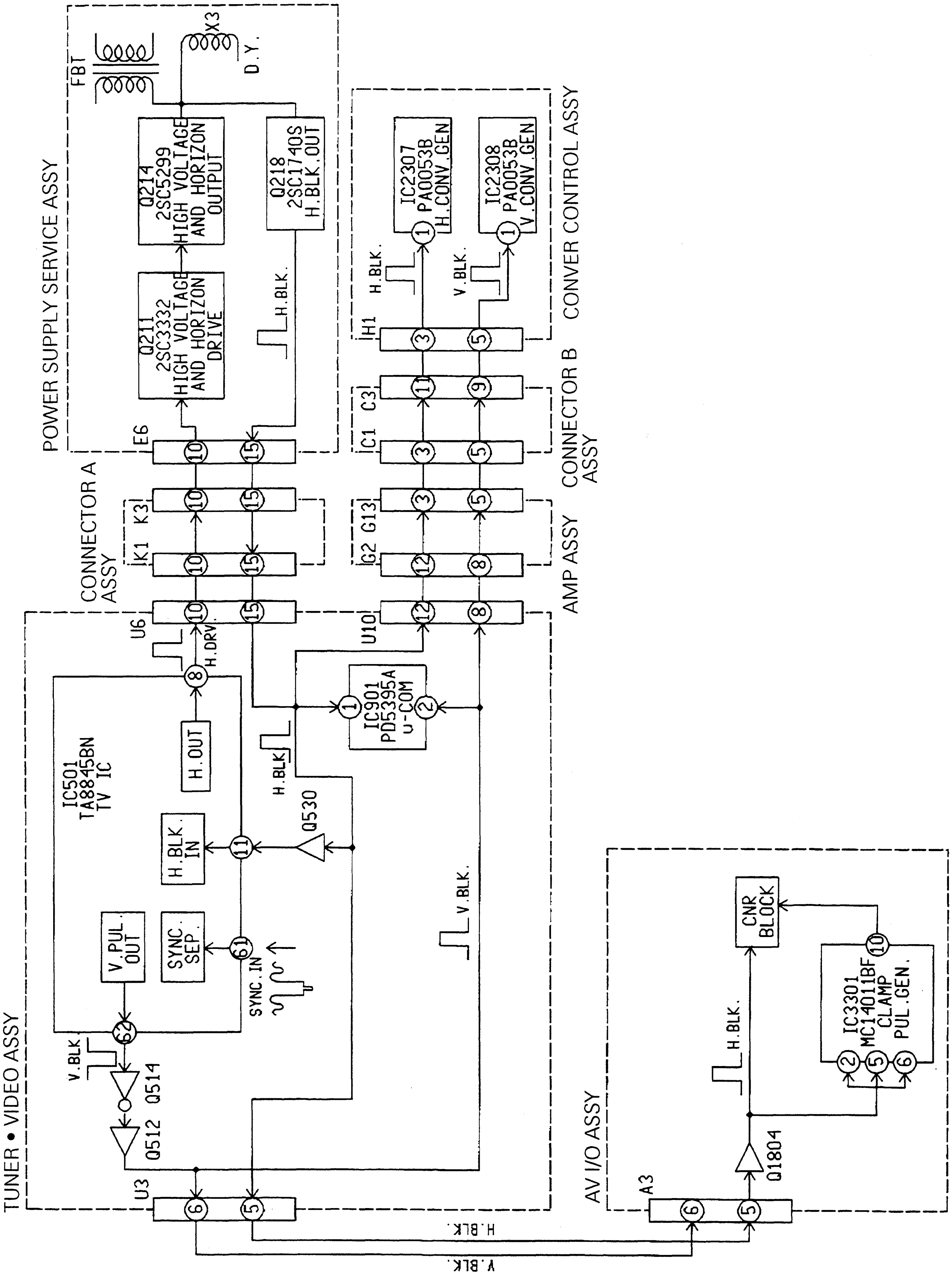

POWER SUPPLY SERVICE ASSY
POWER SW ASSY
D101
R101
R102
SWITCHING REGULATOR
FU101
FU102
T102
D102,D103 D104,D105
C101
RY101
RY102
R178
IC102
R180
C170
R181
D146
RELAY ON (RY102) DETECTION CIRCUIT
R135
R153
R137
R138
Q107
R136
R139
D122
D121
R127
C134
D117
Q104
D142
R128
HEATER REGULATOR
CRT HEATER VOLTAGE DETECTION CIRCUIT
R106
R105
Q101
D141
RELAY DRIVE
R165
C163
Q114
D140
RELAY DRIVE
R169
C165
Q116
R168
R170
D199
D190
D137
R166
Q115
R190
THYRISTER CIRCUIT
C164
R167
D194
STB+12V
R171
R157
E6
E7
RELAY
P.D
CONNECTOR A ASSY
K3
K1
K2
RELAY
P.D
U6
U7
STB.5V
HOLD
IC901
Vcc
RELAY
R967
R1010
D933
R968
Q907
R965
R964
R928
R966
POWER ON : L
POWER OFF : H
TUNER • VIDEO ASSY


H.DEFLECTION OVERLOAD DETECTION CIRCUIT
+135V
+25V
-25V
H.T +
H.T -
R268
R202
C201
C204
R208
R205
R203
Q201
Q204
C202
R201
R204
R206
D224
Q212
R233
D208
C216
+13.5V
R288
D201
T202
CRT ANODE
FOCUS VR
D211
R236
C219
CPU RESET
HV.RETURN
1/2
NOT USED
DETECTION CIRCUIT FOR
COMING-OFF OF RETURN WIRES
R207
C203
R212
R250
R209
Q205
Q206
R216
VR201
R210
C208
D203
C205
R211
R214
C209
R251
D225
X-RAY PROTECTION CIRCUIT

AMP(CONVERGENCE,AUDIO,V.AMP,VM) ASSY


U9
G3
6
P.D
6
R2673
Q2612
R2672
Q2611
C2650
R2671
C2649
R2674
D2614
+25V
R2649
R2650
Q2606
C2649
R2640
D2613
R2639
C2642
NP
R2648
CONECTOR B
V.AMP
R2643
R2647
C2641
R2667
R2651
C2648
V.DEFRECTION
YOKE
V.DEFRECTION DETECTION CIRCUIT

## 7.6.2 H.V. BLOCK AND CIRCUIT BLOCK


POWER SUPPLY SERVICE ASSY
FBT
X3
D.Y.
Q214 2SC5299 HIGH VOLTAGE AND HORIZON OUTPUT
Q211 2SC3332 HIGH VOLTAGE AND HORIZON DRIVE
Q218 2SC1740S H.BLK.OUT
H.BLK.
E6
CONNECTOR A ASSY
K1 K3
CONVER CONTROL ASSY
IC2307 PA0053B H.CONV.GEN
IC2308 PA0053B V.CONV.GEN
H.BLK.
V.BLK.
H1
CONNECTOR B ASSY
C1 C3
AMP ASSY
G2 G13
U6
U10
H.DRV.
IC901 PD5395A μ-COM
IC501 TA8845BN TV IC
H.OUT
H.BLK. IN
SYNC. SEP.
V.PUL. OUT
H.BLK
Q530
V.BLK.
SYNC.IN
V.BLK
Q514
Q512
U3
TUNER • VIDEO ASSY
AV I/O ASSY
A3
Q1804
H.BLK.
CNR BLOCK
IC3301 MC14011BF CLAMP PUL.GEN.
H.BLK.
V.BLK.

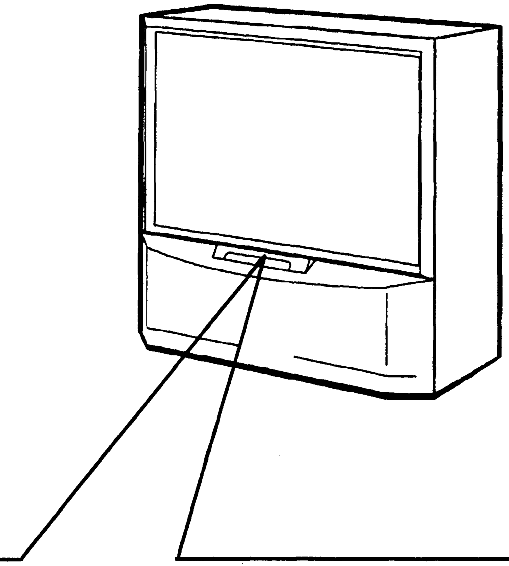
# 8. PANEL FACILITIES AND SPECIFICATIONS

## ■ PANEL FACILITIES

### • FRONT PANEL

A flip-down door conceals the control panel. Push gently and release, to open the door. To close the door, lift it back up into place.

*NOTE:*
*If you accidentally pull the door, it may not shut properly. Push the door back in to shut it.*



① **POWER STANDBY/ON indicator**

② **MAIN POWER switch**
Press once to turn on the power (STANDBY MODE). Press again to turn off the power.

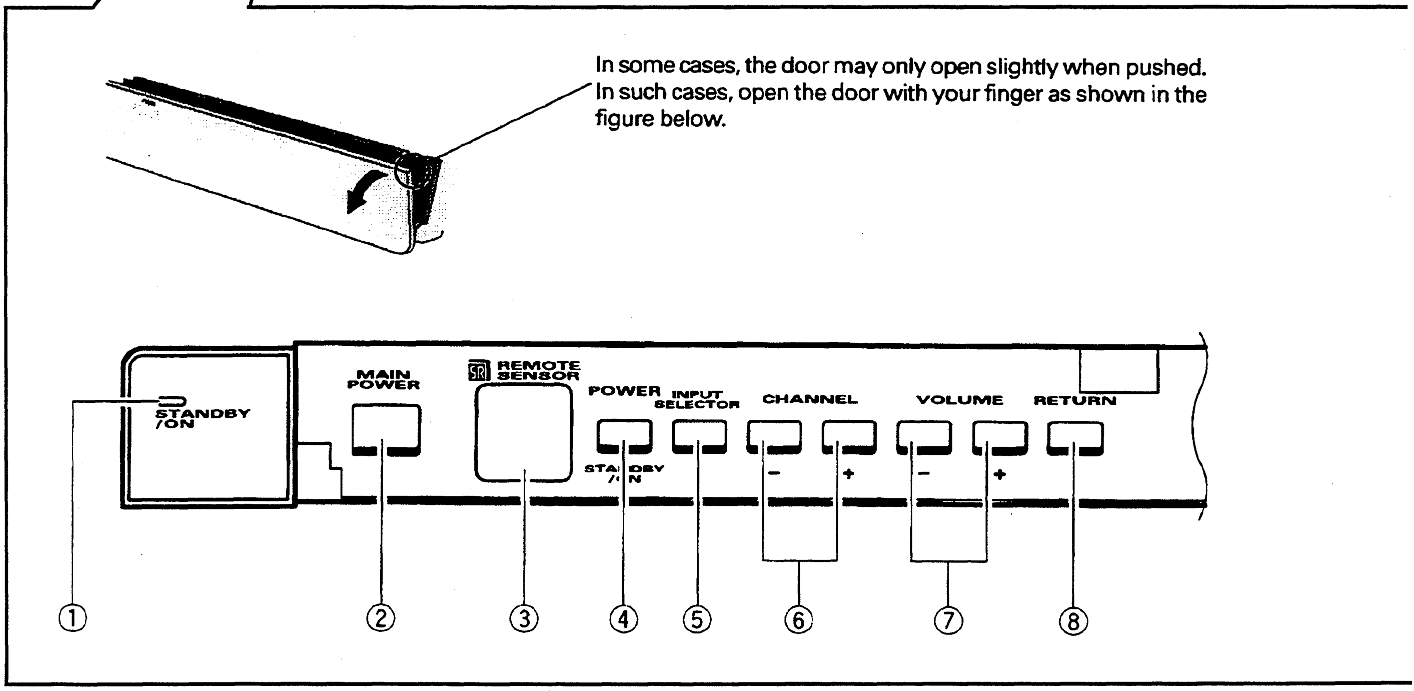
③ **REMOTE SENSOR**
This sensor picks up infrared signals from the remote control unit.

④ **POWER switch (STANDBY/ON)**
Press once to turn on the power. Press again to turn off the power.

⑤ **INPUT SELECTOR button**
Press to select your program source; TV, Videodisc player and VIDEO. Each press of the INPUT SELECTOR changes the selection to the next source.

⑥ **CHANNEL buttons**
Press plus (+) or minus (–) to tune to a higher or lower channel. Only the preset channels can be tuned in using these buttons.

⑦ **VOLUME buttons**
Press plus (+) button to increase the volume, press minus (–) button to decrease it.



In some cases, the door may only open slightly when pushed. In such cases, open the door with your finger as shown in the figure below.

## ⑧ RETURN button

Press to set the Projection Monitor to its initial mode instantly if either sound or picture disappear from the speaker system or the screen during adjustment.

- Adjust the Projection Monitor again after pressing the RETURN button, as all settings have been cleared.

When the RETURN button is pressed, the Projection Monitor is set as follows:
PICTURE: Parameters, set to 0.
VOLUME: Remains at the last setting.
P-IN-P/MUTE/VNR: Set to OFF.
INPUT SELECTOR: Set to TV.
TV CHANNEL: Remains at the last channel set.
MTS: Remains at the last setting.
CC: OFF
COLOR TEMP: NORMAL
AV MEMORY: STANDARD

- When this button is pressed during the outer point convergence, the outer point convergence returns to the initial mode

## ⑨ VIDEO F. INPUT

These inputs are for Video Movie and VCR. Use RCA-type pin plug cords (the same as those used in Hi-Fi systems) for connections. When the audio source to be connected is monaural, connect the source to the L-(MONO) jack.

*NOTE:*

*On rare occasions, an electrical discharge may occur inside the CRT. It makes a short, sharp pop and either no sound is produced or the volume level changes by itself. The Picture-in-Picture function will be cancelled automatically if an electrical discharge occurs when this function is engaged. However, VNR resume automatically when an electrical discharge occurs. When other abnormal functioning is suspected, turn off the power of the unit with the ①MAIN POWER switch, and after some time, turn on the power with ①MAIN POWER switch and ②POWER switch. If the abnormal functioning cannot be corrected, contact an authorized PIONEER service center.*

## CAUTION:

Do not press any operation button on the Projection Monitor or the remote control unit while recording. Signals from the MONITOR OUTPUT jacks may be temporarily interrupted when a button is pressed.

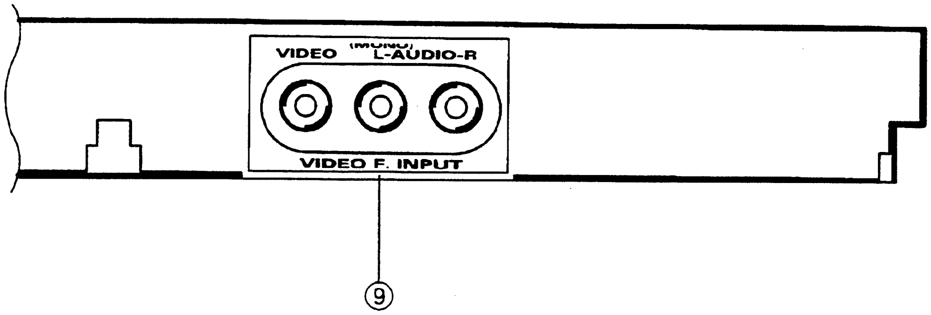
## ATTENTION

The Projection Monitor Receiver will not function properly in the following cases.

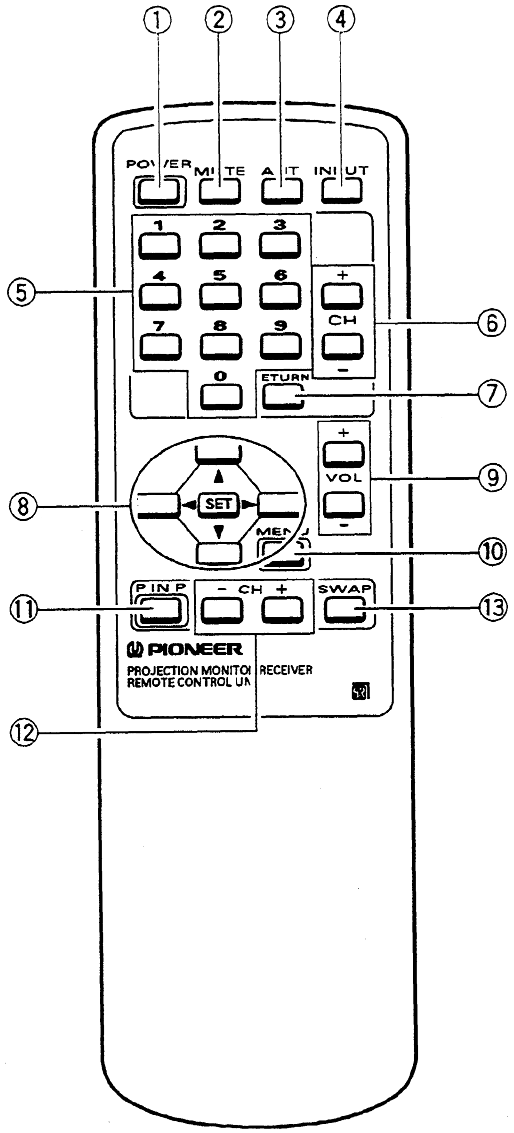
- Lightning storms.
- High static electricity environment.
- Poor voltage regulation in the power source.

If the Projection Monitor does not operate properly, reset it as follows:

1. Unplug from the power supply for approximately 1 minute.
2. Plug the power cord in a receptacle again to reset it.



## • REMOTE CONTROL UNIT



① **POWER button (STANDBY/ON)**
Turns the power of the monitor on and off.

② **MUTE button**
Press to temporarily turn off the sound. Press again to return to the previous volume level. The volume display will turn red while the mute function is set and will disappear from screen when the mute function is canceled.

③ **ANT (antenna selector) button**
Press to switch between ANTENNA-A and ANTENNA-B when you wish to watch TV.

④ **INPUT button**
Press the button to select the source you wish to watch.

⑤ **Direct channel selection buttons**
Press the button (or buttons) that corresponds to the channel that you wish to watch.

⑥ **CH (channel) +, – buttons**
Press plus (+) or minus (–) to tune in a higher or lower channel. Only the preset channels can be tuned in using these buttons.

⑦ **CH RETURN (channel return) button**
Press to switch between the current channel and the channel you were watching immediately before.

⑧ **Select / Adjust / Set buttons (SET, ◄, ►, ▲, ▼)**
◄, ►, ▲, ▼: Press to select, adjust or set items on the menu screen.
SET: Press to activate the selected function.

⑨ **VOL (volume) +, – buttons**
Press plus (+) button to increase the volume, press minus (–) button to decrease it.
Volume level will appear on the screen as numbers and a bar graph. '63' indicates the maximum volume level.
The display will disappear from the screen after 2 seconds.
* Volume display will change color automatically according to the selected input mode.

⑩ **MENU button**
Press to turn on the menu screen for use in function selection. Press again to return to normal TV screen.

⑪ **P IN P button**
Press to turn the Picture-in-Picture function on and off.

⑫ **CH (Channel) +, – buttons**
These buttons can be operated when the Picture-in-Picture function is turned on and the sub picture is in the TV input mode only. Press plus (+) or minus (–) button to tune in a higher or lower channel of the sub picture.
Only the preset channels can be tuned in using these buttons.

⑬ **SWAP button**
When the Picture-in-Picture function is turned on, press to switch between main picture and sub picture.
When ANT A broadcasts are seen on the Main picture, SWAP can be performed.
When ANT B broadcasts are seen on the Main picture, SWAP cannot be performed.

## ■ SPECIFICATIONS

### Display section

Reception system ... American TV standard NTSC system
Screen size ........................................... 62" (SD-P62A3-K)
55" (SD-P55A3-K)
50" (SD-P50A3-K, SD-P50A3-Q)
CRT ............................................... 7" High focus CRT x 3
Brightness (White peak)
........................................ 350 Foot-Lambert (SD-P62A3-K)
450 Foot-Lambert (SD-P55A3-K)
540 Foot-Lambert (SD-P50A3-K, SD-P50A3-Q)
[White window signal input contrast Max.]
Horizontal resolution
............. More than 1000 lines (SD-P62A3-K, SD-P55A3-K)
1000 lines (SD-P50A3-K, SD-P50A3-Q)
[Input digital test pattern (1000 lines resolution)]
Input terminals ............................. 3 video input systems
S-VIDEO input jack (Y/C separate INPUT) x 1
3 audio input systems
Output terminals .............................. MONITOR OUTPUT
Video output, audio output (For recording) x 1
Input signal ... Video signal: 1.0 Vp-p ±0.2V (75 ohms load)
Audio signal: 500mV rms
Input impedance ................... Video input: 75 ohms ±10%
Audio input: 22 kilo-ohms or more
Input signal polarity ...................... Synchronized negative
Output terminal signal ratings:
Output terminals
(VIDEO) ...................... Video signal: 1Vp-p (75 ohms load)
Audio signal: 500 mV rms (100% modulation)
Output impedance ............. Video output: 75 ohms ±10%
Audio output: Less than 1 kilo-ohms
Sub woofer output: Less than 1 kilo-ohms

### Tuner section

Circuit type .................................. Video signal detection:
PLL full synchronous detection
PLL digital synthesizer system
Audio multiplex: BTSC system
Reception channels ... VHF; CH2~CH13, UHF; CH14~CH69
CATV (STANDARD, AIR, IRC or HRC)
CATV 1-125 CH
Antenna terminals
................................ Antenna terminal, 75 ohms UNBAL,
F-type connector (VHF, UHF MIXED)

### Amplifier section

Effective output
Front both channels driven ............................... 2W + 2W
(THD. 1% 1 kHz, 16 ohms)
Built-in speaker system .... 10 cm (3-15/16 in) full range x 2

### Electrical section, miscellaneous

Power requirements ............................... 120 V AC, 60 Hz
Power consumption ....................... 230 W, 480 VA (CSA)
External dimensions
SD-P62A3-K ................ 1360 (W) x 635 (D) x 1523 (H) mm
53 9/16 (W) x 25 (D) x 59 31/32 (H) inch
SD-P55A3-K ................ 1218 (W) x 578 (D) x 1417 (H) mm
47 15/16 (W) x 22 3/4 (D) x 55 25/32 (H) inch
SD-P50A3-K, SD-P50A3-Q
.................................... 1116 (W) x 578 (D) x 1340 (H) mm
43 15/16 (W) x 22 3/4 (D) x 52 3/4 (H) inch

Weight of main unit
SD-P62A3-K ....................................... 111 kg (244 lb 12 oz)
SD-P55A3-K ....................................... 104 kg (229 lb 5 oz)
SD-P50A3-K, SD-P50A3-Q ................ 94 kg (207 lb 4 oz)

### Wireless remote control unit

Operation system ........... Infrared remote control system
Power source
Two DURACELL ®"AA" MN1500 1.5 V
alkaline dry cell batteries
Dimensions ...................... 54 (W) x 19.4 (H) x 175 (D) mm
2 1/8 (W) x 3/4 (H) x 6 7/8 (D) inch
Weight ............................ 75 g (2.65 oz) (without batteries)

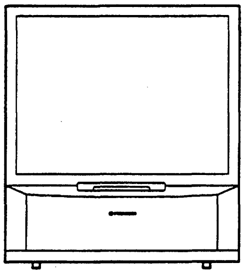
### Accessories

Operating instructions .................................................. 1
Warranty card ............................................................. 1
Remote control unit ...................................................... 1
DURACELL ®"AA" MN1500 1.5V
Alkaline dry cell batteries ............................................. 2

***NOTE:***
*Specifications and design are subject to possible modifications without notice due to improvements.*

# Service Manual

**PIONEER**
*The Art of Entertainment*



**ORDER NO.**
**ARP2952**

## PROJECTION MONITOR RECEIVER

# SD-P50A3-K

# SD-P55A3-K

**THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).**

| Type | Model | | Power Requirement | Remarks |
|---|---|---|---|---|
| | SD-P50A3-K | SD-P55A3-K | | |
| KUXC | ○ | ○ | AC120V | |

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**PIONEER ELECTRONIC CORPORATION** 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
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**PIONEER ELECTRONIC (EUROPE) N.V.** Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
**PIONEER ELECTRONICS ASIACENTRE PTE. LTD.** 501 Orchard Road, #10-00 Lane Crawford Place, Singapore 0923

**© PIONEER ELECTRONIC CORPORATION 1997**

O - IZG APR. 1997 Printed in Belgium

# 1. SAFETY INFORMATION

**This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safety repair complex products such as those covered by this manual.**
**Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safety, you should not risk trying to do so and refer the repair to a qualified service technician.**

**WARNING**
**Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).**
**When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.**

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols -▮▭⊟- (fast operating fuse) and/or -▮▭⊠- (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible -▮▭⊟- (fusible de type rapide) et/ou -▮▭⊠- (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

## 1.1 SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis or picture tube.
The following precautions should be observed :

1. Do not install, remove, or handle the picture tube in any manner unless shatterproof goggles are worn. People not so equipped should be kept away while picture tubes are handled.
   Keep picture tube away from the while handling.
2. When service is required, even though the PROJECTION MONITOR RECEIVER an isolation transformer should be inserted between power line and the set in safety before any service is performed.
3. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
4. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
5. Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's.
   Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
6. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing.

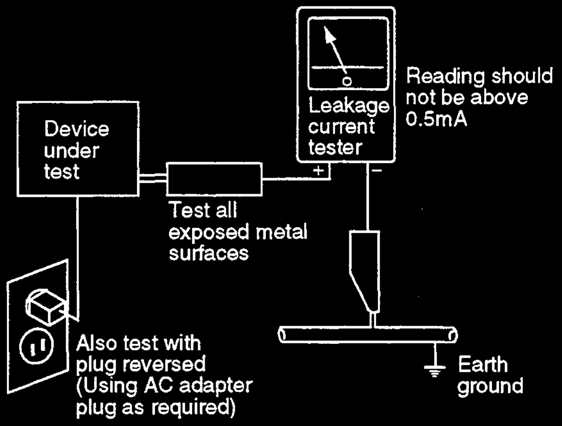
Therefore, the following checks should be performed for the continued protection of the customer and service technician.

### Leakage Current Cold Check

With the AC plug removed from the 120V AC 60Hz source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis should have a minimum resistor reading of 0.3MΩ and a maximum resistor reading of 5MΩ. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

### Leakage Current Hot Check

Plug the AC line cord directly into a 120V AC 60Hz outlet (do not use an isolation transformer for this check). Turn the AC power switch on.
Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.


Device under test
Leakage current tester
Reading should not be above 0.5mA
+
−
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

**ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.**

### High Voltage

This set is provided with a X-ray protection for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this X-ray protection may correctly be operated.

### Serviceman Warning

In the status of the black picture (video muting is being applied) when no signal is input, high voltage of this set during operation is less than 30.5kV. In case any component having some relation to the high voltage is replaced, confirm that the high voltage is lower than 30.5kV in the status of the black picture when no signal is input.
To measure H. V. use a high impedance H. V. meter.
Connect (–) to earth and (+) to the FBT anode cable connector. (Refer to page 131.)

### X-radiation

TUBE : The primary source of X-radiation in this set is the picture tube.
For continued X-radiation protection, the replacement tube must be the same type as the original, PIONEER approved type.
The picture tube (CRT Assy R, G, B) used in this set holds complete guarantee against X-ray radiation when the X-ray is sealed (See page 4). Accordingly, when the current in flowing to the picture tube (CRT Assy R, G, B), be sure to perform it by putting the tube into X-ray sealed applied state. Avoid absolutely to flow the current to the picture tube (CRT Assy R, G, B) itself. Moreover, when the voltage of the high voltage circuit becomes abnormally a little higher, the picture tube radiates X-rays.
Accordingly, when servicing the high voltage circuit be sure to replace as an assy with the POWER SUPPLY SERVICE Assy in the manner in which has been adjusted to perform normal operation.

## 1.2 PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.
Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, X-radiation, or other hazards.
Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

## 1.3 CHARGED SECTION, HIGH VOLTAGE GENERATING POINT AND X-RAY PROTECTION

### ■ Charged section

The circuit in which the commercial AC power is used as it is without passing through the power supply transformer. If the charged section is touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply, In this case, be sure to connect the set via an insulated transformer and supply the current.

### ■ Charged section (Power supply primary side)

1. The primary side of the POWER SUPPLY SERVICE Assy
2. AC Power Cord

■ part is charged section.
▨ part is the high voltage generating points other than the charged section.

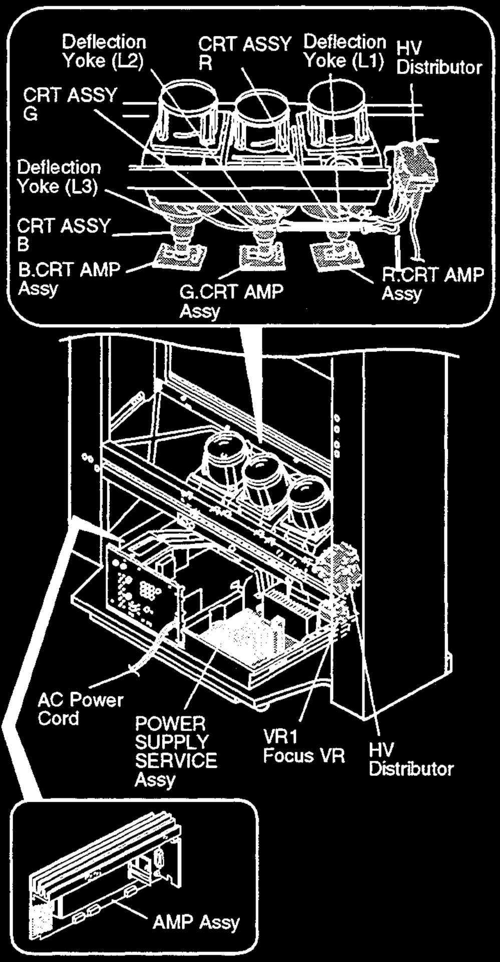


Fig. 1 Charged section and high voltage generating point

### ■ High voltage generating point

The place where voltage of over 100V is generated.

| | |
|---|---|
| 1. Charged section | |
| 2. POWER SUPPLY SERVICE Assy (including FBT) | (30.0kV, 220V, 135V) |
| 3. R. CRT AMP Assy | (10.5kV, 220V) |
| 4. G. CRT AMP Assy | (10.5kV, 220V) |
| 5. B. CRT AMP Assy | (10.5kV, 220V) |
| 6. CRT Assy R | (30.0kV) |
| 7. CRT Assy G | (30.0kV) |
| 8. CRT Assy B | (30.0kV) |
| 9. Focus Variable Resistor (VR1) | (10.5kV) |
| 10. Deflection Yokes (L1, L2 and L3) | (Approx. 1100V at peak) |
| 11. HV Distributer | |
| 12. Velocity Modulation Block of the AMP Assy | (135V) |

### ■ X-ray protection

- Regarding the parts which are relative to radiation of X-rays (There is the danger to radiate X-ray from the individual CRT Assy R, G, B), there are notifications of caution in the individual schematic diagrams. Be sure to read them for safety's sake.
- The component parts for X-ray protection are as follows: When the current flows to the CRT Assy R, G, B, be sure to perform it with these parts being attached. Protection from the X-ray radiation is maintained in the state in which these parts have been installed to the CRT Assy R, G, B. Accordingly, never supply current only to the CRT Assy R, G, B.

  Moreover, the anode voltage of the CRT Assy R, G, B should always be kept not higher than the predetermined value (in the minimum brightness and picture state when non signal input is less than 30.5kV). Be sure to drive the CRT Assy R, G, B by using a completely functional POWER SUPPLY SERVICE Assy (including HV Distributor) which have been adjusted completely in the combined state. (When the voltage abnormally becomes high, the X-ray protection circuit will operate.)

1. CRT Assy R, G, B (Do not dismantle CRT assemblies under any circumstances).
2. Each Lens Assy

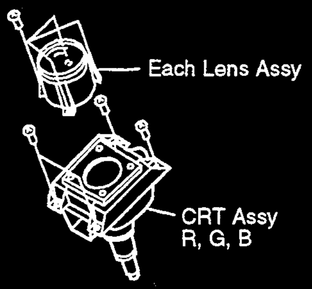
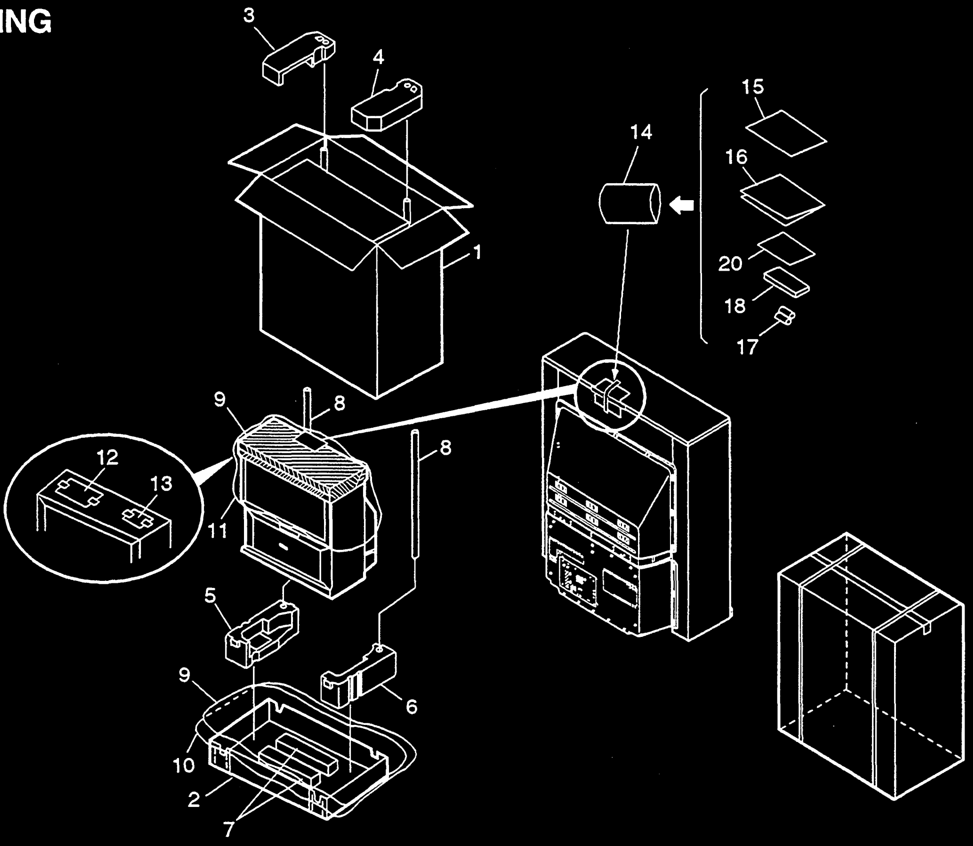


Fig. 2 Component parts for X-ray protection

# 2. EXPLODED VIEWS AND PARTS LIST

*NOTES:* • *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
• *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
• *Parts marked by ☆ are important parts which relate in X-rays radiation.*
*If any of these parts need to be replaced, always replace with specified parts.*
• *Screws adjacent to ▼ mark on the product are used for disassembly.*

## 2.1 PACKING



### (1) PARTS LIST

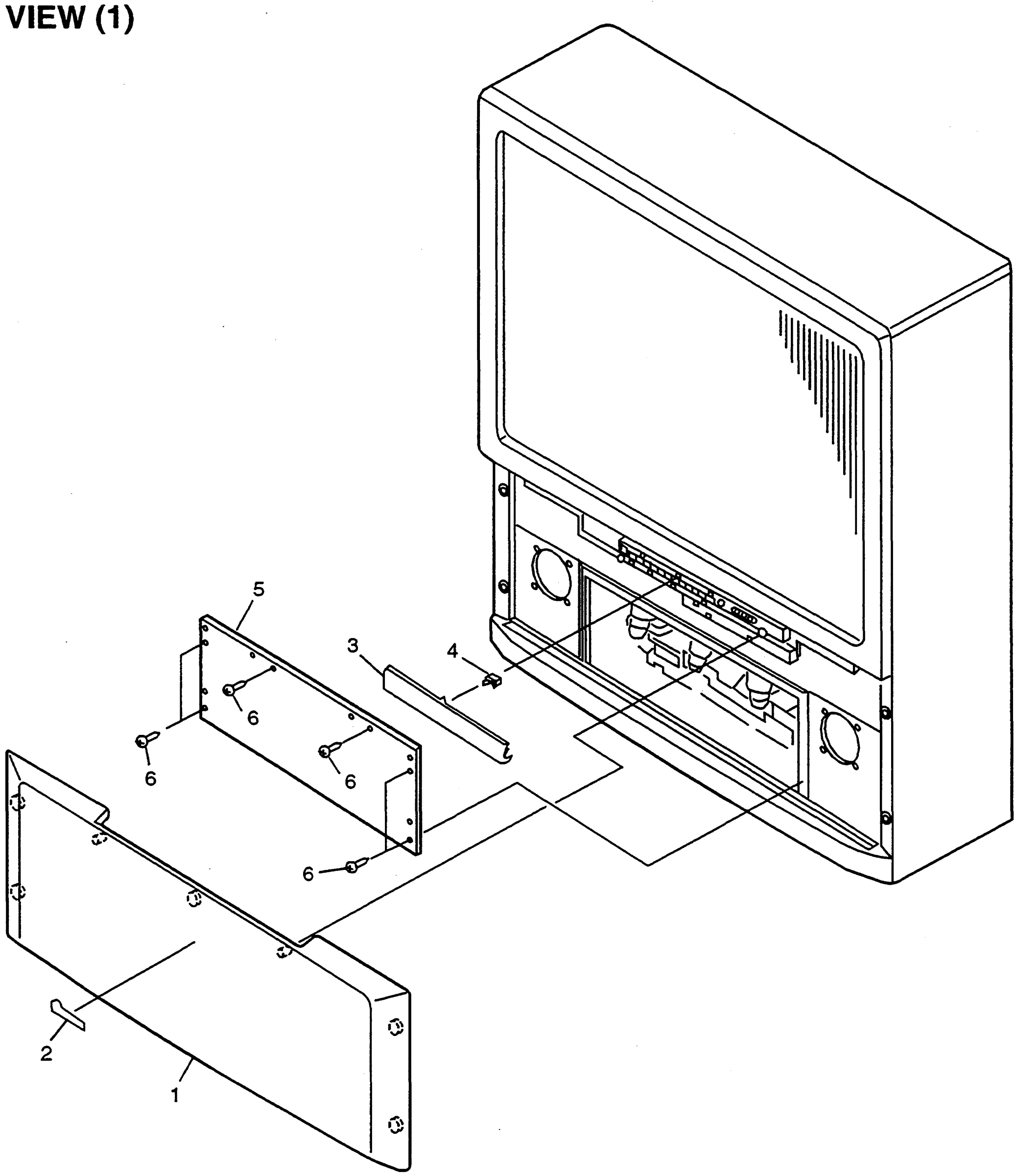
| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | Upper Carton | See Contrast table (2) |
| | 2 | Under Carton | See Contrast table (2) |
| | 3 | Upper Pad L | AHA2163 |
| | 4 | Upper Pad R | AHA2164 |
| | 5 | Under Pad L | AHA2165 |
| | 6 | Under Pad R | AHA2166 |
| | 7 | Under Cushion | AHA2167 |
| | 8 | Paper Tube | See Contrast table (2) |
| NSP | 9 | Packing Sheet | AHG1268 |
| NSP | 10 | Vinyl Sheet | AHG1270 |
| NSP | 11 | Vinyl Sheet | AHG1266 |
| | 12 | CONVER Attention Card | ARM1120 |
| | 13 | Caster Caution Card | ARM1125 |
| NSP | 14 | Literature Bag | AHG1222 |
| NSP | 15 | Warranty Card | ARY1050 |
| | 16 | Operating Instructions (English) | ARB1510 |
| NSP | 17 | Alkaline Dry Cell Battery (LR6, AA) | AEX1018 |
| | 18 | Remote Control Unit (CU-SD103) | AXD1429 |
| | 19 | Battery Cover | AZA7031 |
| NSP | 20 | Caution Card | ARM1057 |

### (2) CONTRAST TABLE

SD-P50A3-K/KUXC and SD-P55A3-K/KUXC have the same construction except for the following :

| Mark | No. | Symbol and Description | Part No. | | Remarks |
|---|---|---|---|---|---|
| | | | SD-P50A3-K/KUXC | SD-P55A3-K/KUXC | |
| | 1 | Upper Carton | AHD2884 | AHD2885 | |
| | 2 | Under Carton | AHD2887 | AHD2888 | |
| | 8 | Paper Tube | AHB1182 | AHB1183 | |

## 2.2 FRONT VIEW (1)



### (1) PARTS LIST

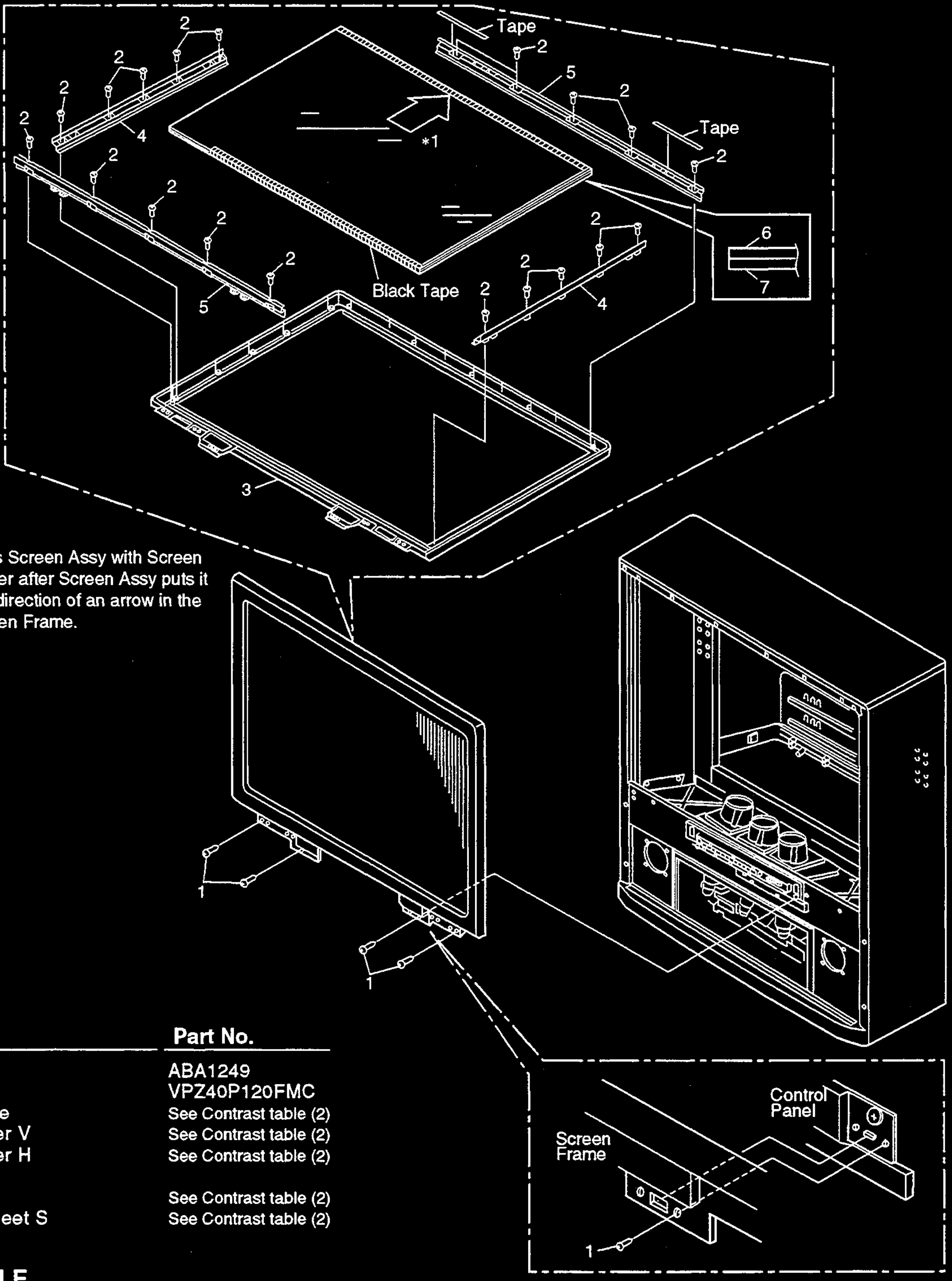
| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | Grille | See Contrast table (2) |
| | 2 | Badge | AAM1074 |
| | 3 | Door | See Contrast table (2) |
| | 4 | Catcher | AEC1609 |
| | 5 | Blind Plate | AMM2765 |
| | 6 | Screw | ABA1241 |

### (2) CONTRAST TABLE

SD-P50A3-K/KUXC and SD-P55A3-K/KUXC have the same construction except for the following :

| Mark | No. | Symbol and Description | Part No. | | Remarks |
|---|---|---|---|---|---|
| | | | SD-P50A3-K/KUXC | SD-P55A3-K/KUXC | |
| | 1 | Grille | AMR2917 | AMR2918 | |
| | 3 | Door | AAN1431 | AAN1432 | |

## 2.3 SCREEN FRAME BLOCK



*1 : Fixes Screen Assy with Screen Holder after Screen Assy puts it in a direction of an arrow in the Screen Frame.

### (1) PARTS LIST

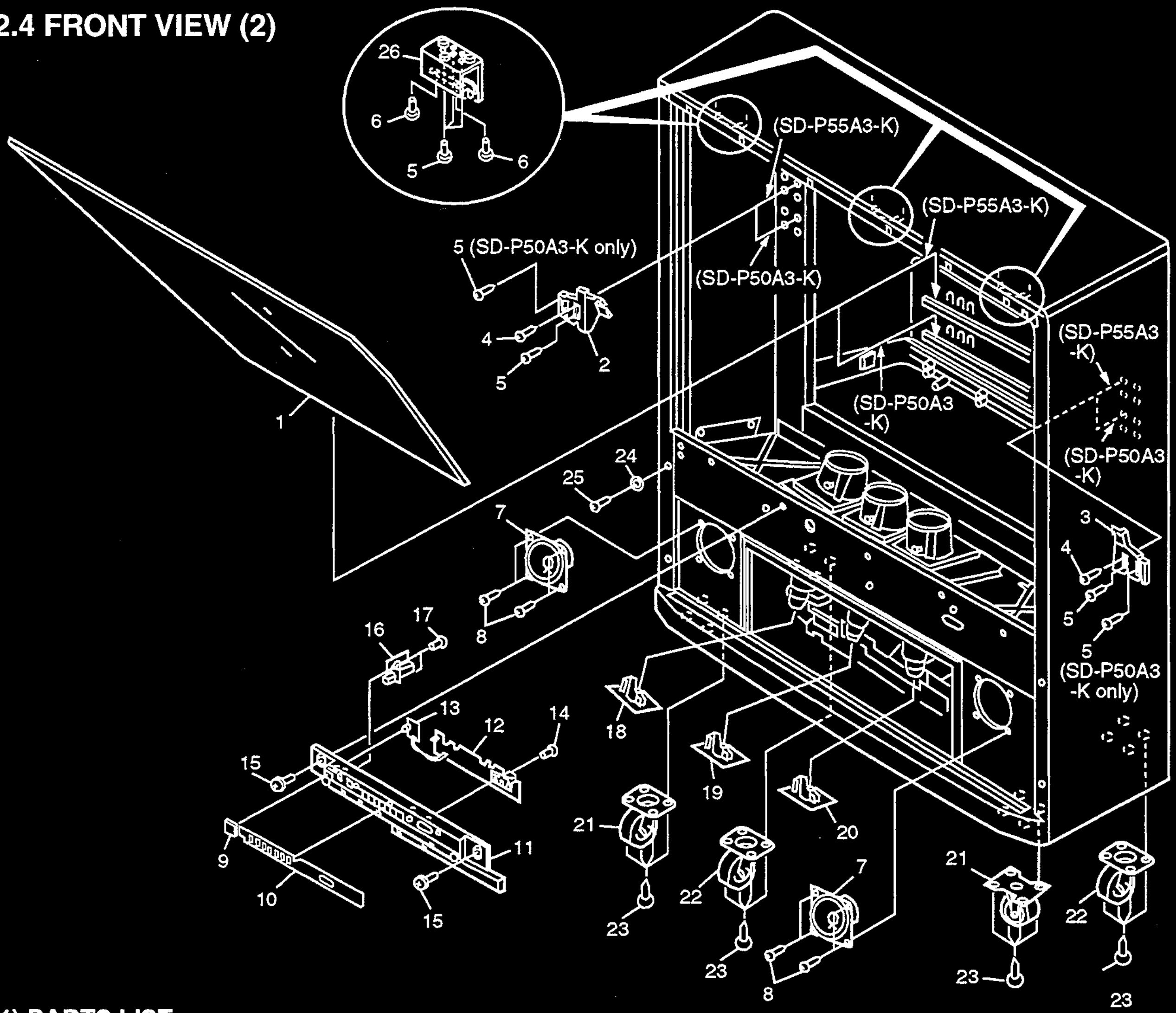
| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | Screw | ABA1249 |
| | 2 | Screw | VPZ40P120FMC |
| | 3 | Screen Frame | See Contrast table (2) |
| NSP | 4 | Screen Holder V | See Contrast table (2) |
| NSP | 5 | Screen Holder H | See Contrast table (2) |
| | 6 | Fresnel S | See Contrast table (2) |
| | 7 | Lenticular Sheet S | See Contrast table (2) |

### (2) CONTRAST TABLE

SD-P50A3-K/KUXC and SD-P55A3-K/KUXC have the same construction except for the following :

| Mark | No. | Symbol and Description | Part No. | | Remarks |
|---|---|---|---|---|---|
| | | | SD-P50A3-K/KUXC | SD-P55A3-K/KUXC | |
| | 3 | Screen Frame | AMB2599 | AMB2600 | |
| NSP | 4 | Screen Holder V | ANG2143 | ANG2145 | |
| NSP | 5 | Screen Holder H | ANG2142 | ANG2144 | |
| | 6 | Fresnel S | AMR2979 | AMR2980 | |
| | 7 | Lenticular Sheet S | AMR2976 | AMR2977 | |

## 2.4 FRONT VIEW (2)


26
6
5
6
(SD-P55A3-K)
(SD-P55A3-K)
5 (SD-P50A3-K only)
(SD-P50A3-K)
4
2
5
1
(SD-P55A3 -K)
(SD-P50A3 -K)
(SD-P50A3 -K)
24
25
7
3
4
5
5 (SD-P50A3 -K only)
16
17
8
13
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23
23

### (1) PARTS LIST

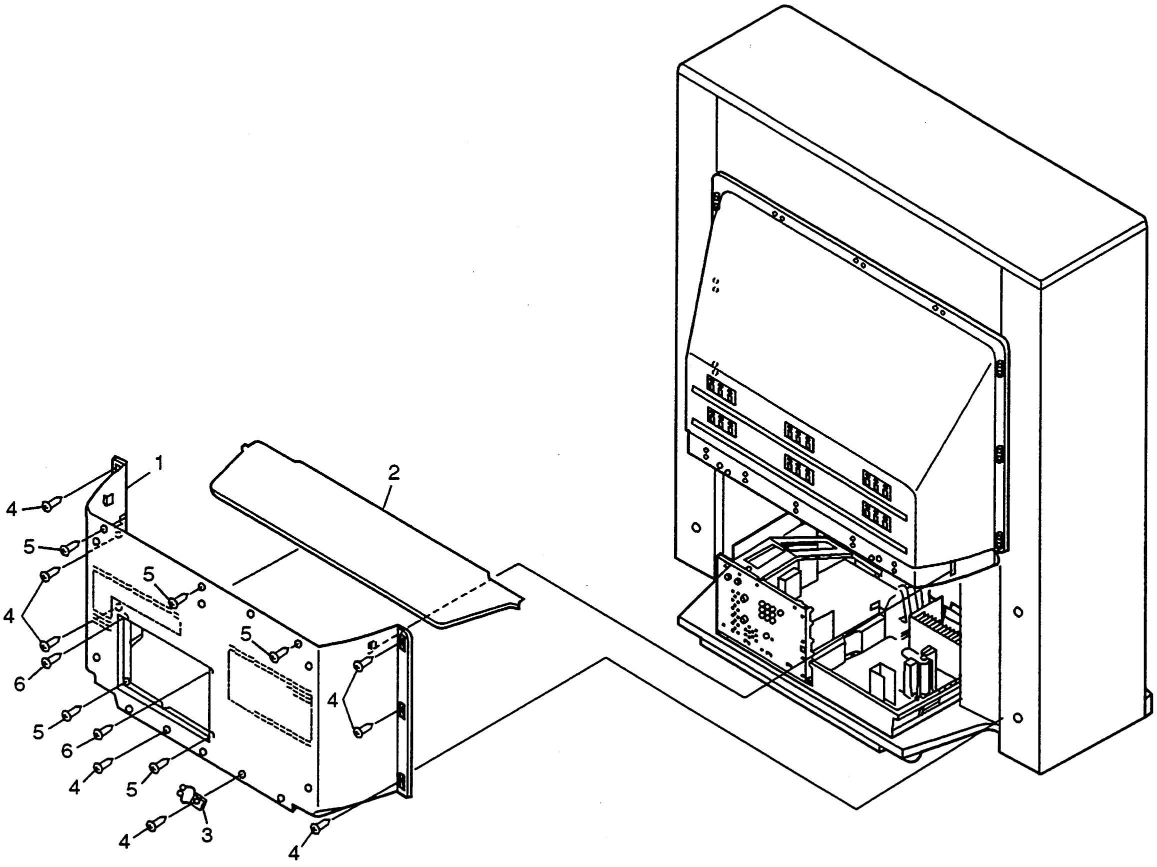
| Mark | No. | Description | Part No. | Mark | No. | Description | Part No. |
|---|---|---|---|---|---|---|---|
| | 1 | Mirror | See Contrast table (2) | | 16 | POWER SW Assy | AWZ6188 |
| | 2 | Mirror Side Holder L | AMR2921 | | 17 | Screw | BPZ30P120FMC |
| | 3 | Mirror Side Hoder R | AMR2922 | | 18 | R. CRT AMP Assy | AWZ6191 |
| | 4 | Screw | VPZ40P120FMC | | 19 | G. CRT AMP Assy | AWZ6192 |
| | 5 | Screw | ABA1124 | | 20 | B. CRT AMP Assy | AWZ6193 |
| | 6 | Screw | ABA1239 | | 21 | Caster (Front) | AMR2863 |
| | 7 | Speaker | APV1047 | | 22 | Caster (Rear) | AMR2547 |
| | 8 | Screw | ABA1240 | | 23 | Screw | ABA1126 |
| | 9 | Indicator Panel | AAK2687 | | 24 | Magic Tape | AEC1394 |
| | 10 | Control Sheet | AAK2686 | | 25 | Screw | BYC35P160FZB |
| | 11 | Control Panel | AMB2602 | | 26 | Mirror Holder | AMR2920 |
| | 12 | Front Control Assy | AWZ6186 | | | | |
| | 13 | Indicator Assy | AWZ6187 | | | | |
| | 14 | Screw | ABZ30P120FZK | | | | |
| | 15 | Screw | ABA1234 | | | | |

### (2) CONTRAST TABLE

SD-P50A3-K/KUXC and SD-P55A3-K/KUXC have the same construction except for the following :

| Mark | No. | Symbol and Description | Part No. | | Remarks |
|---|---|---|---|---|---|
| | | | SD-P50A3-K/KUXC | SD-P55A3-K/KUXC | |
| | 1 | Mirror | AMR2937 | AMR2938 | |

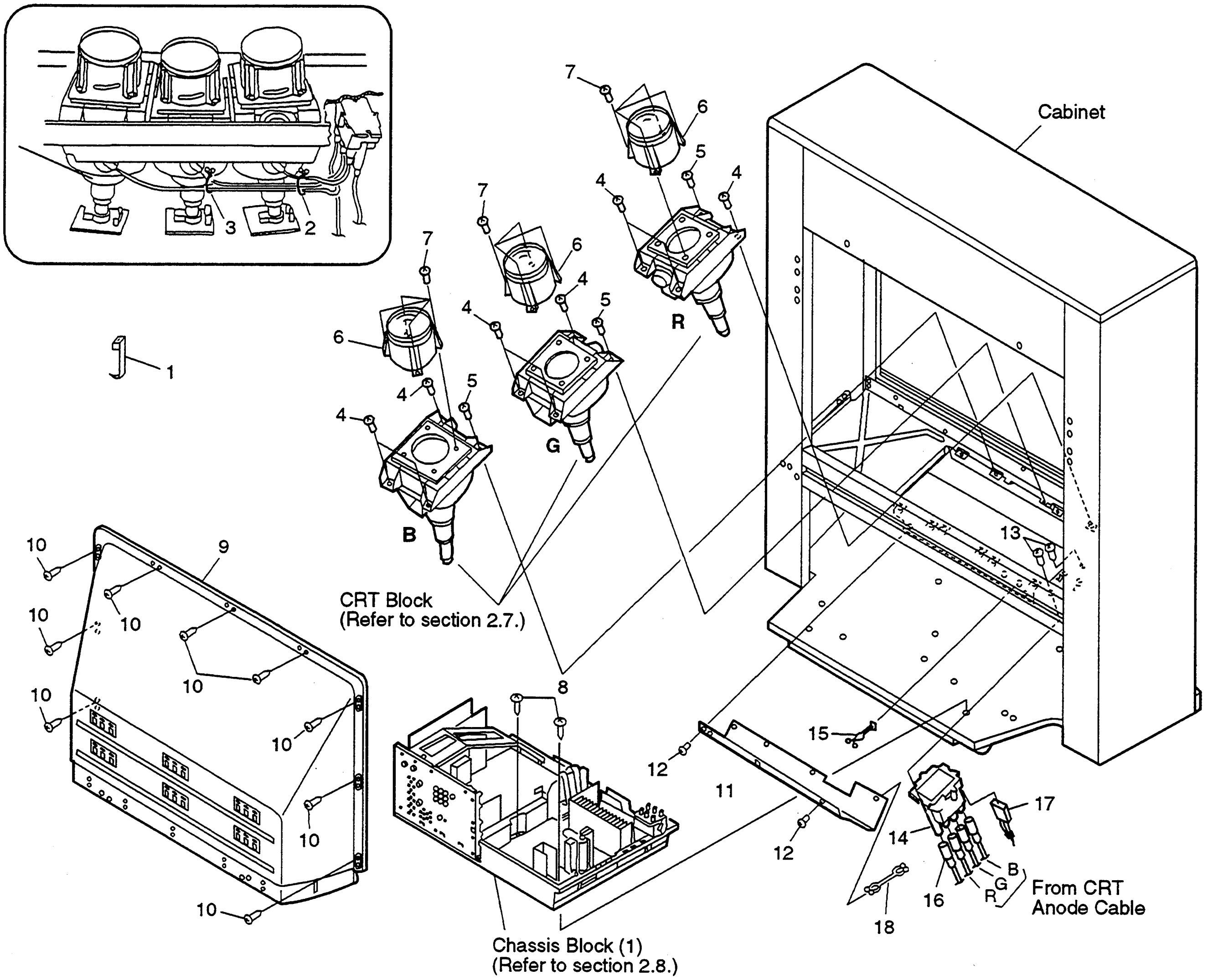
## 2.5 REAR VIEW (1)



### Parts List

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | Rear Cover | AME2299 |
| NSP | 2 | Back Cover Panel | AMM2772 |
| NSP | 3 | Purse Lock | AEC1263 |
| | 4 | Screw | ABA1240 |
| | 5 | Screw | ABA1235 |
| | 6 | Screw | ABA1149 |

## 2.6 REAR VIEW (2)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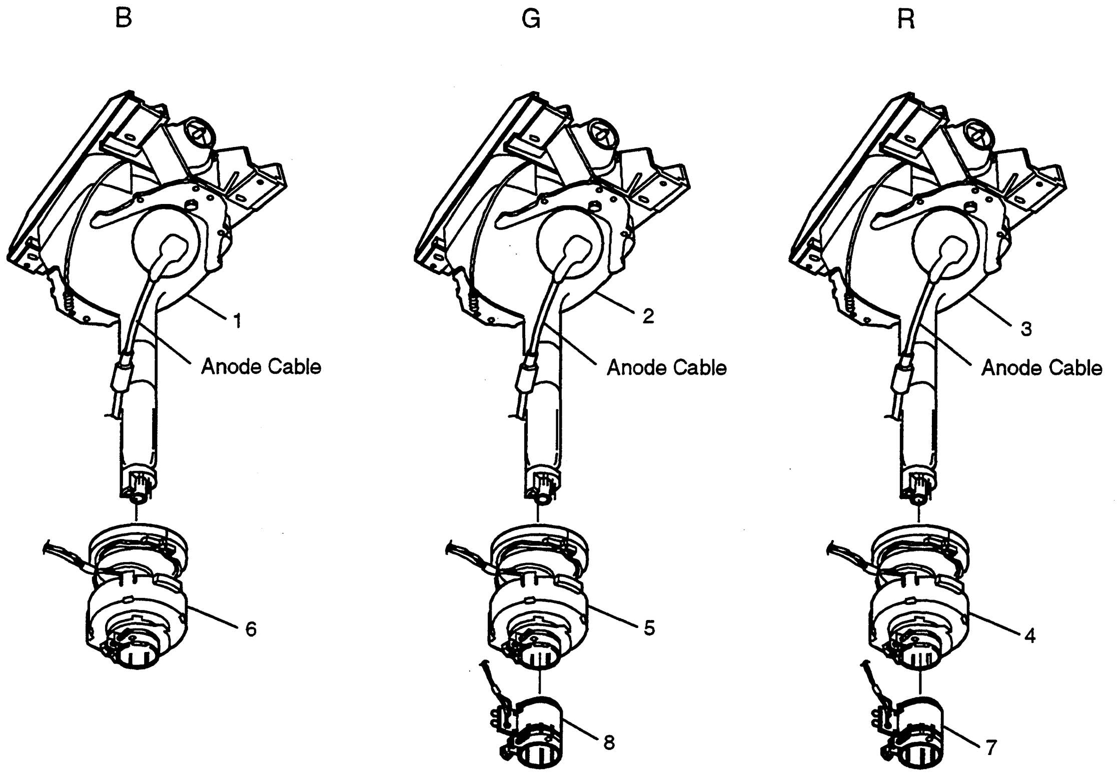
15
16
17
18
R
G
B
Cabinet
CRT Block
(Refer to section 2.7.)
Chassis Block (1)
(Refer to section 2.8.)
From CRT
Anode Cable

### Parts List

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | Binder | AEC-093 |
| | 2 | Purse Lock | AEC1540 |
| NSP | 3 | Purse Lock S | AEC1261 |
| | 4 | Screw | ABA1168 |
| | 5 | Screw | FBT40P120FZK |
| ☆ | 6 | Lens Assy | AMR2833 |
| | 7 | Screw | AMZ40P080FZK |
| | 8 | Screw | BYC40P350FZK |
| | 9 | Mirror Case | AME2298 |
| | 10 | Screw | ABA1240 |
| | 11 | Tray | AMR2936 |
| | 12 | Screw | ABZ30P120FZK |
| | 13 | Screw | VPZ40P120FMC |
| NSP ⚠ | 14 | HV Distributor | AXW1046 |
| NSP | 15 | Lead Clamper | AEC1611 |
| | 16 | HV Cable (J26) | ADY1032 |
| | 17 | HV Return Wire (J27) | ADX2338 |
| | 18 | Cable Clip | AEC1708 |

## 2.7 CRT BLOCK



### (1) PARTS LIST

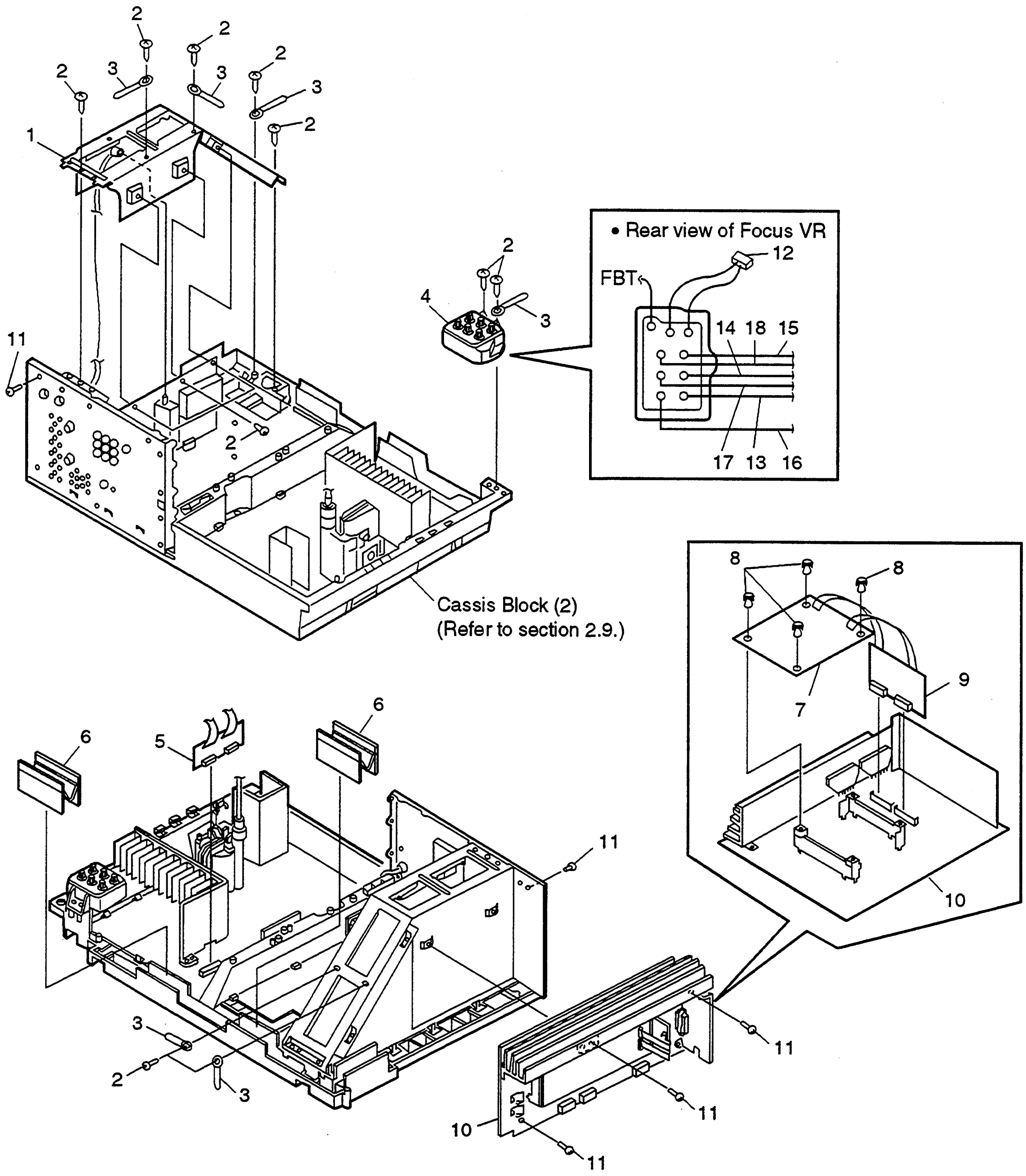
| Mark | No. | Description | Part No. |
|---|---|---|---|
| ☆ | 1 | CRT Service Assy B | See Contrast table (2) |
| ☆ | 2 | CRT Service Assy G | AWY1388 |
| ☆ | 3 | CRT Service Assy R | See Contrast table (2) |
| ⚠ | 4 | Deflection Yoke (L2) | ATL1130 |
| ⚠ | 5 | Deflection Yoke (L3) | ATL1130 |
| ⚠ | 6 | Deflection Yoke (L4) | ATL1130 |
| ⚠ | 7 | VM Coil (L5) | ATL1133 |
| ⚠ | 8 | VM Coil (L6) | ATL1133 |

### (1) CONTRAST TABLE

SD-P50A3-K/KUXC and SD-P55A3-K/KUXC have the same construction except for the following :

| Mark | No. | Symbol and Description | Part No. | | Remarks |
|---|---|---|---|---|---|
| | | | SD-P50A3-K/KUXC | SD-P55A3-K/KUXC | |
| ☆ | 1 | CRT Service Assy B | AWY1389 | AWY1391 | |
| ☆ | 3 | CRT Service Assy R | AWY1387 | AWY1390 | |

## 2.8 CHASSIS BLOCK (1)


2
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11
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• Rear view of Focus VR
12
FBT
14 18 15
17 13 16
Cassis Block (2)
(Refer to section 2.9.)
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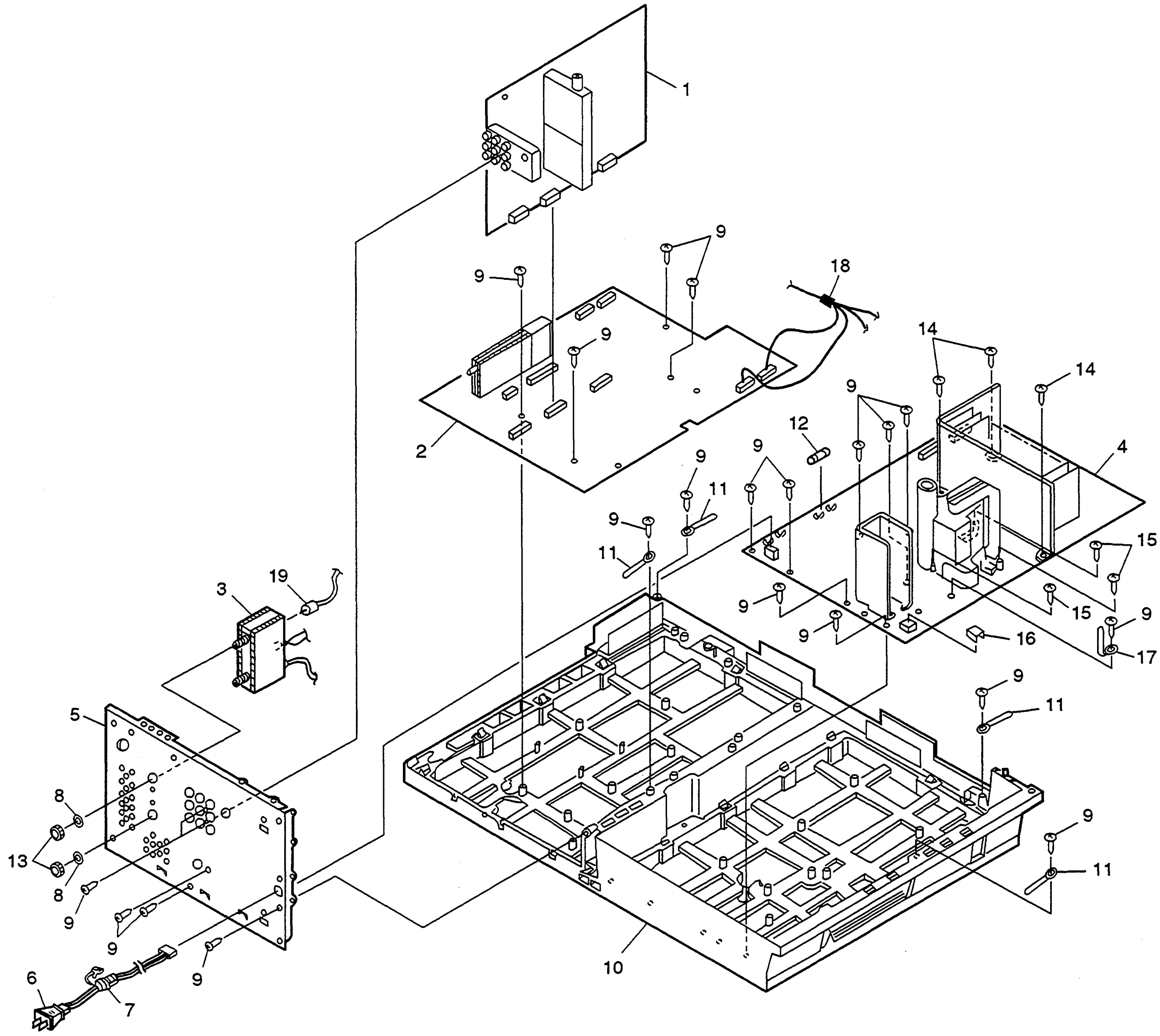
11

### Parts List

| Mark | No. | Description | Part No. |
|---|---|---|---|
| NSP | 1 | PCB Frame | ANG2141 |
| | 2 | Screw | BBZ30P140FZK |
| | 3 | Binder | AEP-215 |
| ⚠ | 4 | Focus VR (VR1) | ACX1096 |
| | 5 | CONNECTOR A Assy | AWZ6189 |
| | 6 | Wire Holder | AMR2832 |
| | 7 | CONVER CONTROL Assy | AWZ6195 |
| | 8 | Rivet | AEC-441 |
| | 9 | CONNECTOR B Assy | AWZ6196 |
| | 10 | AMP Assy | AWZ6190 |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 11 | Screw | ABZ30P120FZK |
| | 12 | 4P Housing Wire (J11) | ADX2230 |
| | 13 | 1P Lead Wire (J4) | ADX2289 |
| | 14 | 1P Lead Wire (J5) | ADX2290 |
| | 15 | 1P Lead Wire (J6) | ADX2291 |
| | 16 | 1P Lead Wire (J7) | ADX2231 |
| | 17 | 1P Lead Wire (J8) | ADX2232 |
| | 18 | 1P Lead Wire (J9) | ADX2233 |

## 2.9 CHASSIS BLOCK (2)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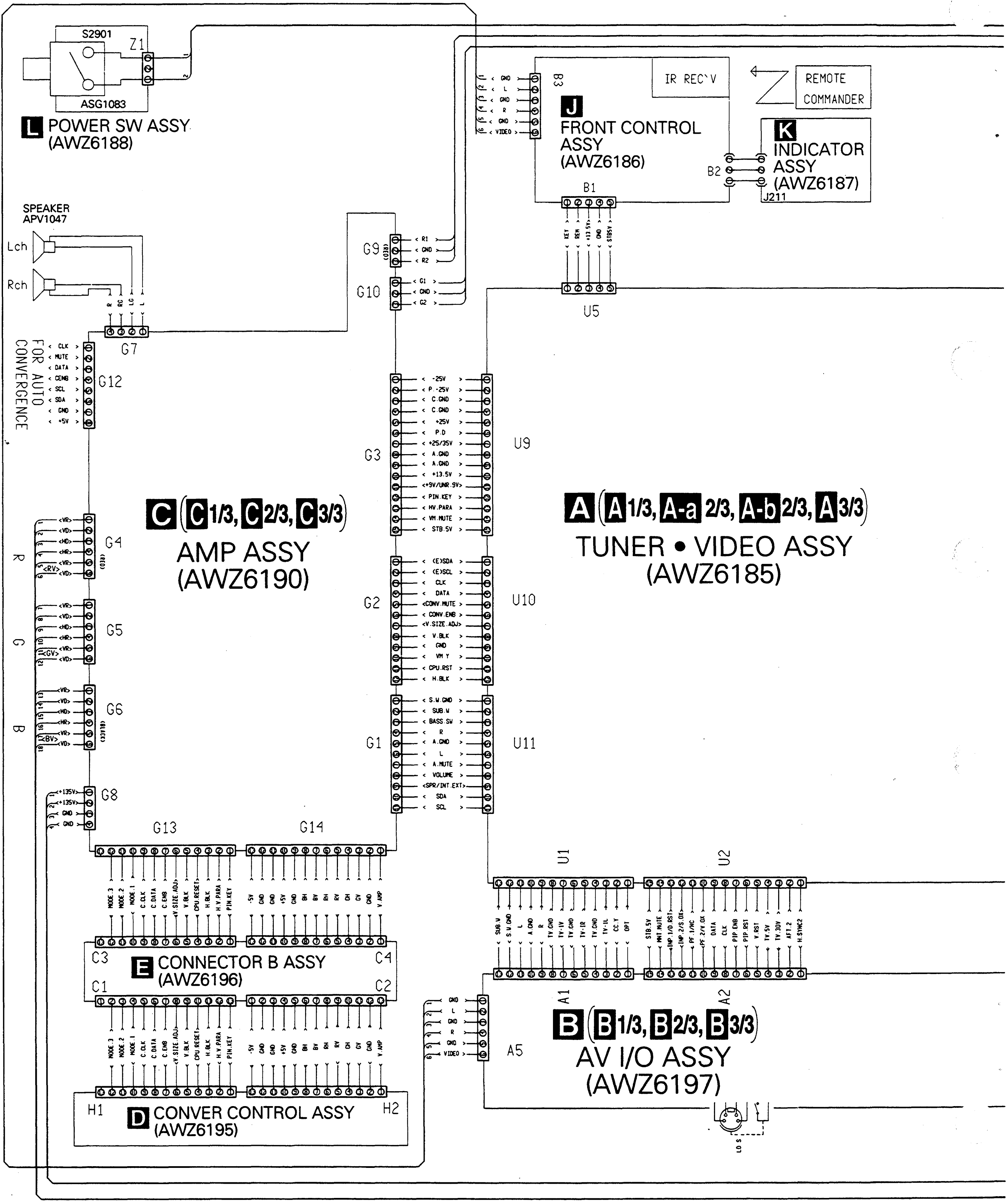
7

### Parts List

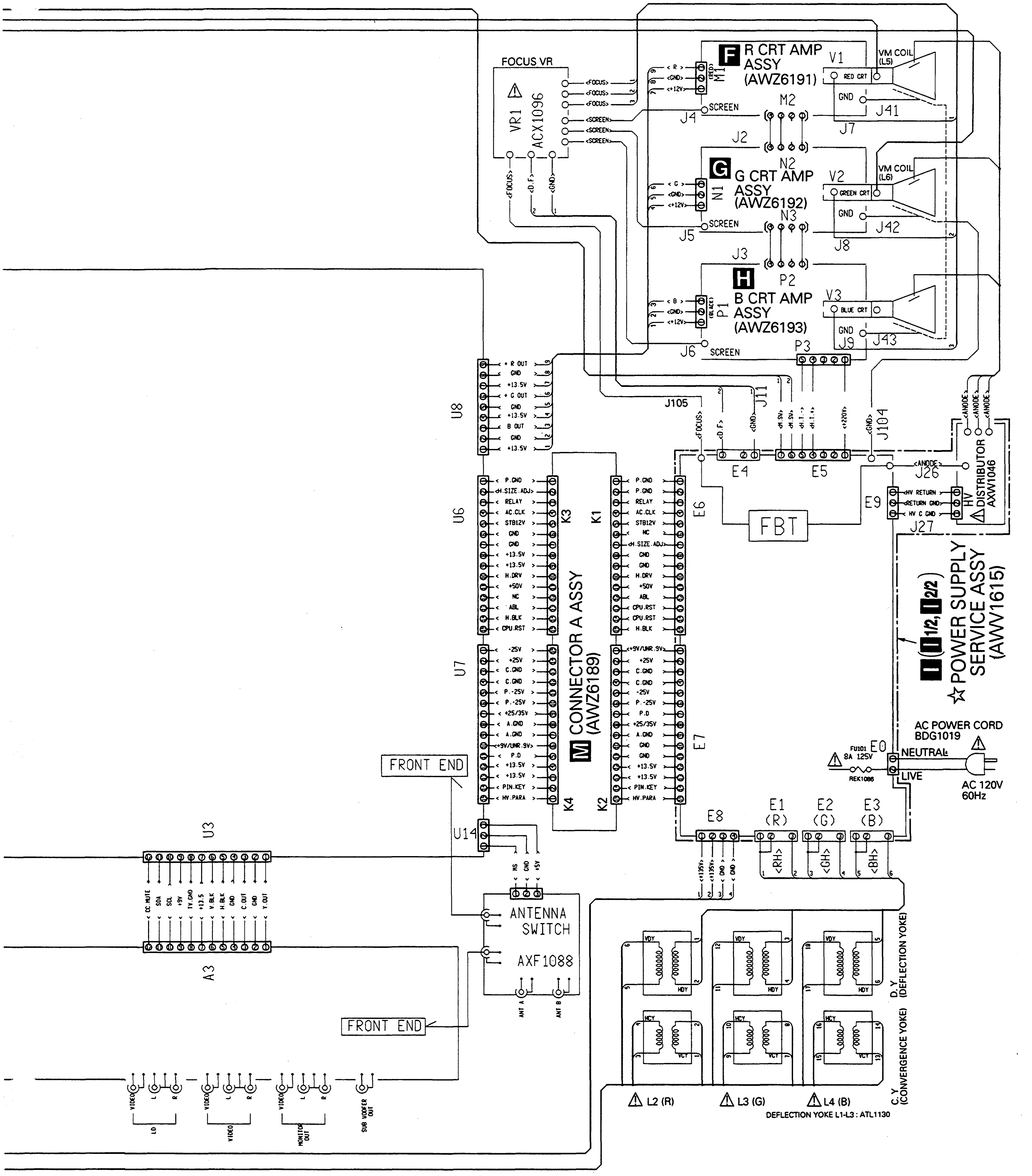
| Mark | No. | Description | Part No. |
|---|---|---|---|
|  | 1 | AV I/O Assy | AWZ6197 |
|  | 2 | TUNER • VIDEO Assy | AWZ6185 |
|  | 3 | RF Switch | AXF1088 |
| ☆ | 4 | POWER SUPPLY SERVICE Assy | AWV1615 |
|  | 5 | Rear Panel | ANC2296 |
| ⚠ | 6 | AC Power Cord | BDG1019 |
|  | 7 | Strain Relief | AEP-113 |
|  | 8 | Bushing | AEC1661 |
|  | 9 | Screw | BBZ30P140FZK |
| NSP | 10 | Chassis | AMA1011 |
|  | 11 | Binder | AEP-215 |
| ⚠ | 12 | Fuse (FU102, 0.5A/125V) | AEK1010 |
|  | 13 | Nut | ABN-087 |
|  | 14 | Screw | ABZ30P120FZK |
|  | 15 | Screw | VBZ30P200FMC |
|  | 16 | Shield Case | ANK1510 |
|  | 17 | Binder | AEC-826 |
|  | 18 | Wire Harness (J8009) | ADX2288 |
|  | 19 | Coaxial Cable | ADE1165 |

# 3. SCHEMATIC DIAGRAM

## 3.1 OVERALL WIRING DIAGRAM


S2901
Z1
ASG1083
L POWER SW ASSY (AWZ6188)
SPEAKER APV1047
Lch
Rch
R RG LG L
G7
FOR AUTO CONVERGENCE
CLK MUTE DATA CENB SCL SDA GND +5V
G12
IR REC'V
REMOTE COMMANDER
B3
GND L GND R GND VIDEO
J FRONT CONTROL ASSY (AWZ6186)
K INDICATOR ASSY (AWZ6187)
B2
B1
J211
KEY REM +13.5V GND STB5V
U5
G9
R1 GND R2
G10
G1 GND G2
G3
-25V P.-25V C.GND C.GND +25V P.D +25/35V A.GND A.GND +13.5V +9V/UNR.9V PIN.KEY HV.PARA VM.MUTE STB.5V
U9
C (C1/3, C2/3, C3/3)
AMP ASSY (AWZ6190)
A (A1/3, A-a 2/3, A-b 2/3, A3/3)
TUNER • VIDEO ASSY (AWZ6185)
G4
R
VR VD HD HR VR RV VD
G5
G
GV
G6
B
BV
G2
(E)SDA (E)SCL CLK DATA CONV.MUTE CONV.ENB V.SIZE.ADJ V.BLK GND VM Y CPU.RST H.BLK
U10
G1
S.W.GND SUB.W BASS.SW R A.GND L A.MUTE VOLUME SPR/INT.EXT SDA SCL
U11
G8
+135V +135V GND GND
G13
G14
MODE.3 MODE.2 MODE.1 C.CLK C.DATA C.ENB V.SIZE.ADJ V.BLK CPU.RESET H.BLK H.V.PARA PIN.KEY
-5V GND GND +5V GND BH BV RH RV GH GV GND V.AMP
C3
C4
E CONNECTOR B ASSY (AWZ6196)
C1
C2
H1
H2
D CONVER CONTROL ASSY (AWZ6195)
U1
U2
SUB.W S.W.GND L A.GND R TV.GND TV-1V TV.GND TV-1R TV.GND TV-1L CC.Y OPT
STB.5V MNT.MUTE INP.1/O.RST INP.2/S.OX PF.1/NC PF.2/Y.OX DATA CLK PIP.ENB PIP.RST V.RST TV.5V TV.30V AFT.2 H.SYNC2
A1
A2
GND L GND R GND VIDEO
A5
B (B1/3, B2/3, B3/3)
AV I/O ASSY (AWZ6197)
LOS

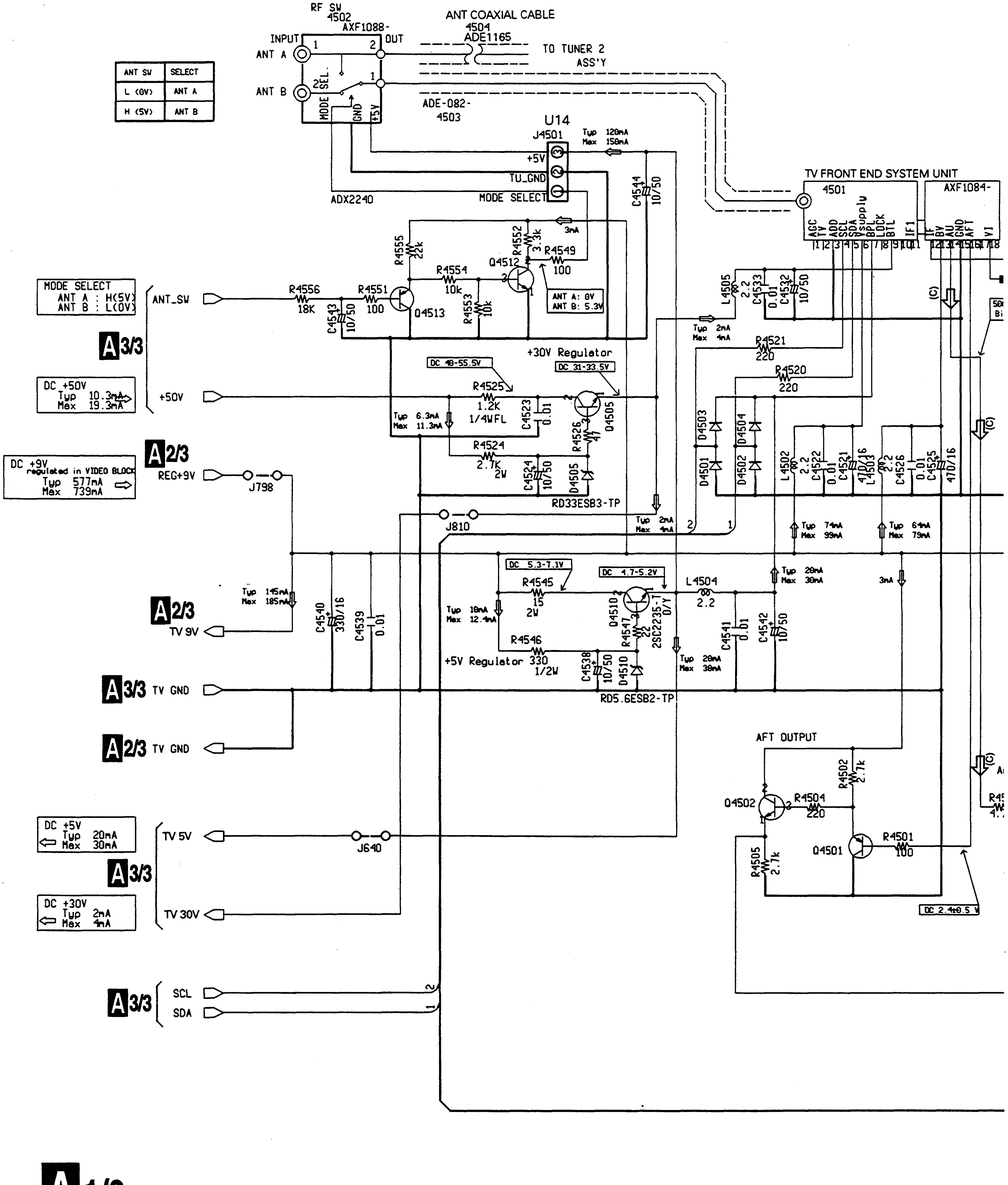
Note : When ordering service parts, be sure to refer to
"EXPLODED VIEWS AND PARTS LIST" or "PCB PARTS LIST"


FOCUS VR
VR1 ACX1096
<FOCUS>
<SCREEN>
<D.F>
<GND>
F R CRT AMP ASSY (AWZ6191)
G G CRT AMP ASSY (AWZ6192)
H B CRT AMP ASSY (AWZ6193)
M1
N1
P1
M2
N2
N3
P2
P3
V1
V2
V3
RED CRT
GREEN CRT
BLUE CRT
VM COIL (L5)
VM COIL (L6)
GND
J2
J3
J4
J5
J6
J7
J8
J9
J11
J41
J42
J43
J104
J105
SCREEN
U8
+ R OUT
GND
+13.5V
+ G OUT
B OUT
U6
U7
K1
K2
K3
K4
E4
E5
E6
E7
E8
E9
E0
E1 (R)
E2 (G)
E3 (B)
J26
J27
<ANODE>
FBT
HV DISTRIBUTOR AXW1046
HV RETURN
RETURN GND
HV C GND
M CONNECTOR A ASSY (AWZ6189)
P.GND
H.SIZE.ADJ
RELAY
AC.CLK
STB12V
NC
H.DRV
+50V
ABL
H.BLK
CPU.RST
-25V
+25V
C.GND
P.-25V
+25/35V
A.GND
+9V/UNR.9V
P.D
PIN.KEY
HV.PARA
<H.SV>
<H.T.>
<+220V>
I ( I 1/2, I 2/2) ☆ POWER SUPPLY SERVICE ASSY (AWW1615)
AC POWER CORD BDG1019
FU101 8A 125V
REK1086
NEUTRAL
LIVE
AC 120V 60Hz
FRONT END
U14
MS
+5V
U3
A3
CC MUTE
SDA
SCL
+9V
TV.GND
+13.5
V.BLK
H.BLK
C.OUT
Y.OUT
ANTENNA SWITCH
AXF1088
ANT A
ANT B
<RH>
<GH>
<BH>
<+135V>
VDY
HDY
HCY
VCY
D.Y (DEFLECTION YOKE)
C.Y (CONVERGENCE YOKE)
L2 (R)
L3 (G)
L4 (B)
DEFLECTION YOKE L1-L3 : ATL1130
VIDEO
L
R
LD
MONITOR OUT
SUB WOOFER OUT

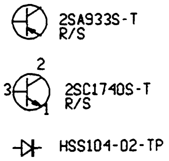
## 3.2 TUNER•VIDEO ASSY (1/3)

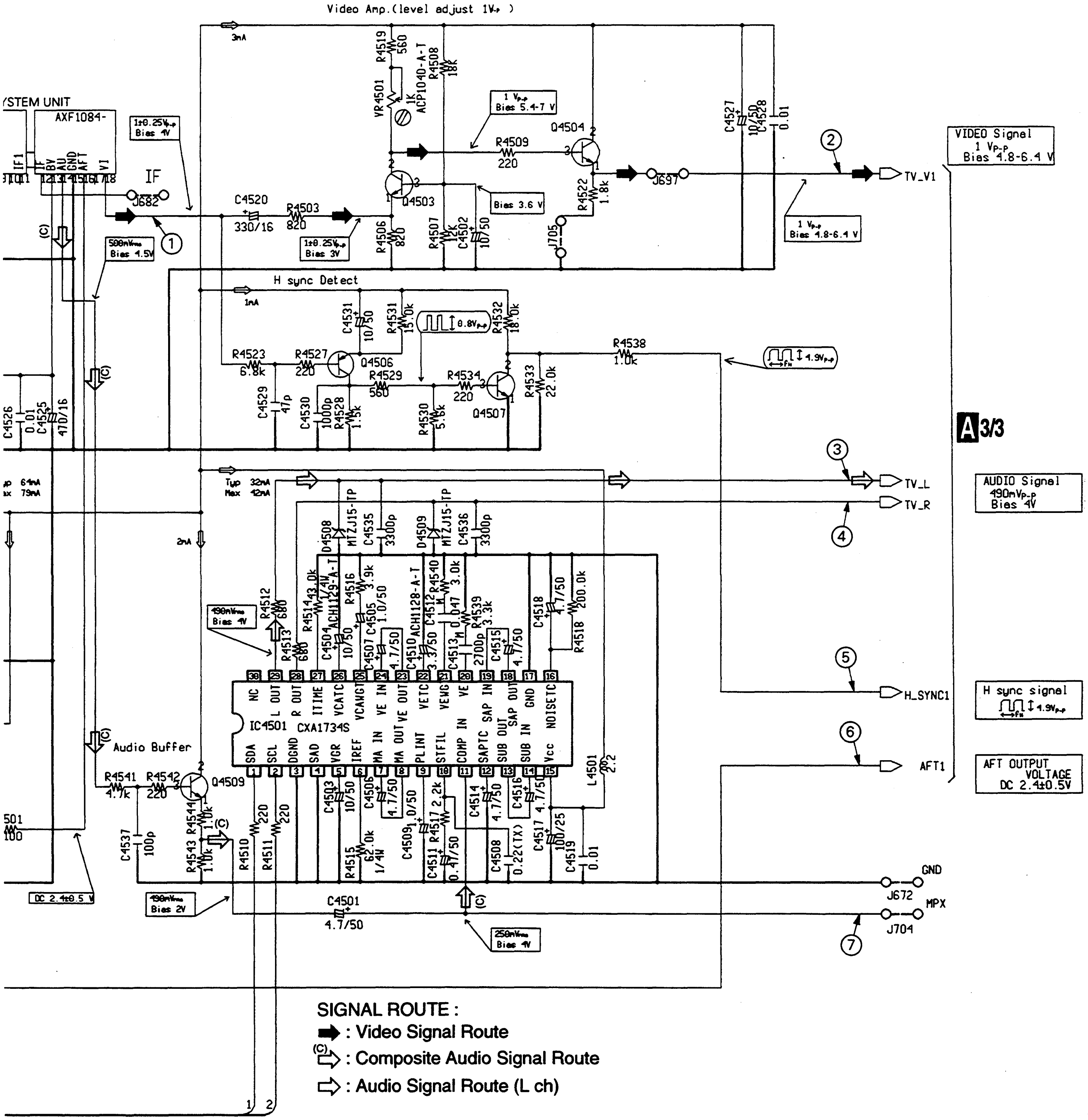
# A TUNER • VIDEO ASSY (1/3) (AWZ6185)

## • TUNER BLOCK


RF SW
4502
AXF1088-
INPUT
OUT
ANT A
ANT B
SEL.
MODE
GND
+5V
ANT COAXIAL CABLE
4504
ADE1165
TO TUNER 2
ASS'Y
ADE-082-
4503
ANT SW | SELECT
L (0V) | ANT A
H (5V) | ANT B
U14
J4501
+5V
TU_GND
MODE SELECT
ADX2240
Typ 120mA
Max 150mA
C4544
10/50
TV FRONT END SYSTEM UNIT
4501
AXF1084-
AGC
TV
ADD
SCL
SDA
Vsupply
BPL
LOCK
BTL
IF1
IF
BV
AU
GND
AFT
VI
MODE SELECT
ANT A : H(5V)
ANT B : L(0V)
ANT_SW
R4556
18K
R4551
100
Q4513
C4543
10/50
R4555
22k
R4554
10k
R4553
10k
Q4512
R4552
3.3k
R4549
100
3mA
ANT A: 0V
ANT B: 5.3V
L4505
2.2
C4533
0.01
C4532
10/50
Typ 2mA
Max 4mA
R4521
220
R4520
220
A3/3
DC +50V
Typ 10.3mA
Max 19.3mA
+50V
+30V Regulator
DC 48-55.5V
DC 31-33.5V
R4525
1.2K
1/4WFL
C4523
0.01
Q4505
R4526
47
Typ 6.3mA
Max 11.3mA
R4524
2.7K
2W
C4524
10/50
D4505
RD33ESB3-TP
D4503
D4504
D4501
D4502
L4502
2.2
C4522
0.01
C4521
470/16
L4503
2.2
C4526
0.01
C4525
470/16
A2/3
DC +9V
regulated in VIDEO BLOCK
Typ 577mA
Max 739mA
REG+9V
J798
J810
Typ 2mA
Max 4mA
Typ 74mA
Max 99mA
Typ 64mA
Max 79mA
DC 5.3-7.1V
DC 4.7-5.2V
R4545
15
2W
Q4510
2SC2235-T
O/Y
L4504
2.2
Typ 20mA
Max 30mA
3mA
Typ 145mA
Max 185mA
A2/3
TV 9V
C4540
330/16
C4539
0.01
Typ 10mA
Max 12.4mA
R4547
22
C4541
0.01
C4542
10/50
R4546
+5V Regulator 330
1/2W
C4538
10/50
D4510
RD5.6ESB2-TP
Typ 20mA
Max 30mA
A3/3 TV GND
A2/3 TV GND
AFT OUTPUT
Q4502
R4504
220
R4502
2.7k
Q4501
R4501
100
R4505
2.7k
DC 2.4±0.5 V
DC +5V
Typ 20mA
Max 30mA
TV 5V
J640
A3/3
DC +30V
Typ 2mA
Max 4mA
TV 30V
A3/3
SCL
SDA
(C)

Notes
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k Ω
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless
otherwise noted p pF
Indication without voltage is 50V except electrolytic capacitor.


2SA933S-T
R/S
2SC1740S-T
R/S
HSS104-02-TP


Video Amp.(level adjust 1Vp-p )
SYSTEM UNIT
AXF1084-
IF1
IF
BV
AU
GND
AFT
VI
J682
C4520
330/16
R4503
820
R4506
820
Q4503
R4519
560
VR4501
1K
ACP1040-A-T
R4508
18k
R4509
220
Q4504
R4522
1.8k
R4507
12k
C4502
10/50
J705
J697
C4527
10/50
C4528
0.01
1 Vp-p Bias 5.4-7 V
Bias 3.6 V
1±0.25Vp-p Bias 3V
1±0.25Vp-p Bias 4V
500mVrms Bias 4.5V
1 Vp-p Bias 4.8-6.4 V
VIDEO Signal
1 Vp-p
Bias 4.8-6.4 V
TV_V1
H sync Detect
3mA
1mA
C4531
10/50
R4531
15.0k
0.8Vp-p
R4532
18.0k
R4523
6.8k
R4527
220
Q4506
R4529
560
R4534
220
Q4507
R4533
22.0k
R4538
1.0k
4.9Vp-p
C4529
47p
C4530
1000p
R4528
1.5k
R4530
5.6k
C4526
0.01
C4525
470/16
A3/3
Typ 32mA
Max 42mA
Typ 64mA
Max 79mA
2mA
TV_L
TV_R
AUDIO Signal
490mVp-p
Bias 4V
D4508
MTZJ15-TP
C4535
3300p
D4509
MTZJ15-TP
C4536
3300p
R4512
680
R4513
680
R4514
43.0k
1/4W
ACH1129-A-T
R4516
3.9k
C4504
10/50
C4505
1.0/50
C4507
4.7/50
C4510
3.3/50
ACH1128-A-T
R4540
3.0k
C4512
0.047
C4513
2700p
R4539
3.3k
C4515
4.7/50
C4518
4.7/50
R4518
200.0k
490mVrms Bias 4V
IC4501 CXA1734S
NC
L OUT
R OUT
ITIME
VCATC
VCAWGT
VE IN
VE OUT
VETC
VEWG
VE
SAP IN
SAP OUT
GND
NOISETC
SDA
SCL
DGND
SAD
VGR
IREF
MA IN
MA OUT
PLINT
STFIL
COMP IN
SAPTC
SUB OUT
SUB IN
Vcc
H_SYNC1
H sync signal
4.9Vp-p
AFT1
AFT OUTPUT VOLTAGE DC 2.4±0.5V
Audio Buffer
R4541
4.7k
R4542
220
Q4509
R4544
1.0k
R4543
1.0k
C4537
100p
R4501
100
R4510
220
R4511
220
C4503
10/50
C4506
4.7/50
R4515
62.0k
1/4W
C4509
1.0/50
R4517
2.2k
C4511
0.47/50
C4514
4.7/50
C4508
0.22(TX)
C4516
4.7/50
C4517
100/25
C4519
0.01
L4501
22
GND
J672
MPX
J704
C4501
4.7/50
DC 2.4±0.5 V
490mVrms Bias 2V
250mVrms Bias 4V
(C)
1
2

SIGNAL ROUTE :
➡ : Video Signal Route
(C)⇨ : Composite Audio Signal Route
⇨ : Audio Signal Route (L ch)

## 3.3 TUNER•VIDEO ASSY (2/3)

**A-a**

Large size SCH diagram
（大きなサイズの回路図）

A-a A-b

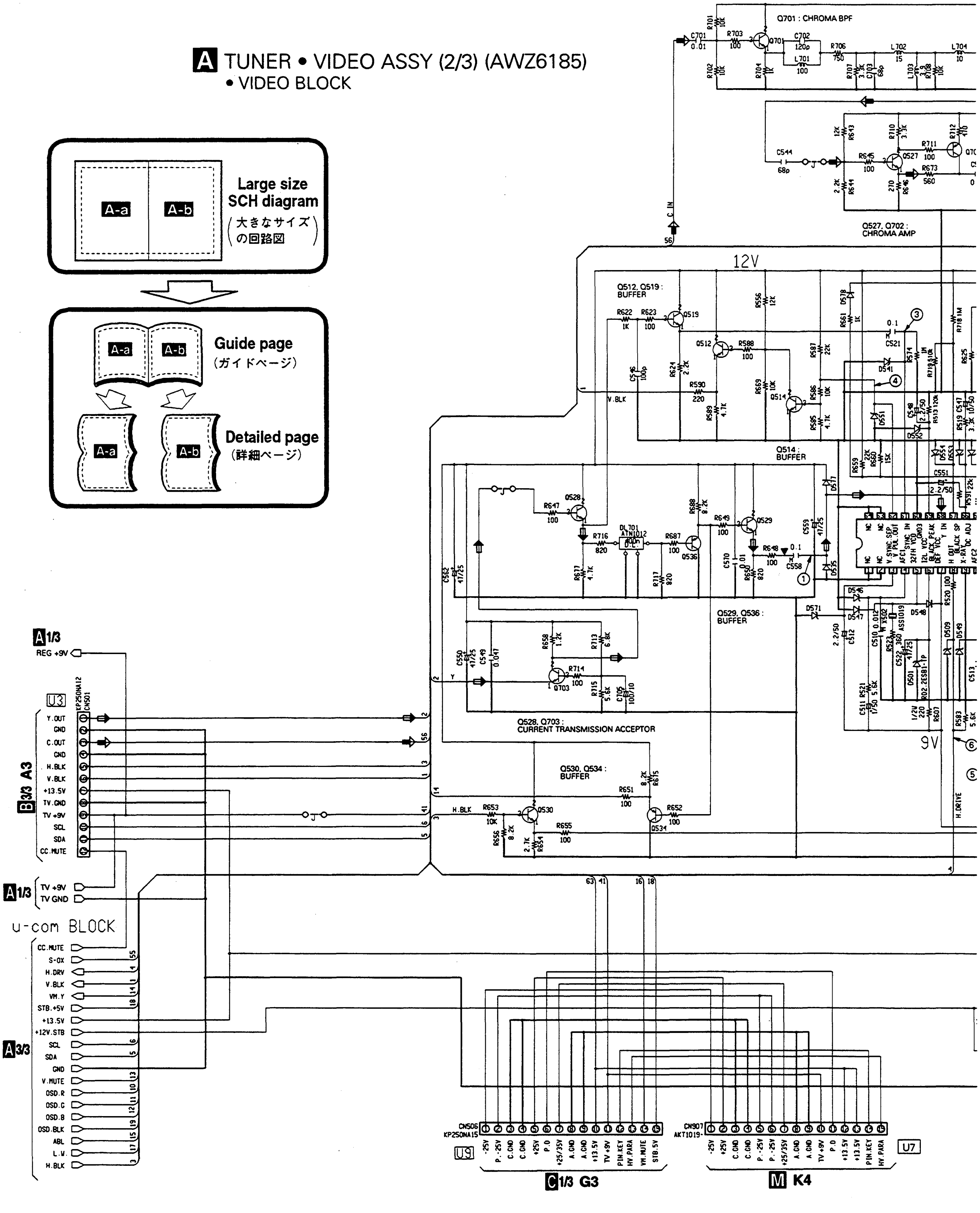
Guide page
（ガイドページ）

A-a A-b

Detailed page
（詳細ページ）

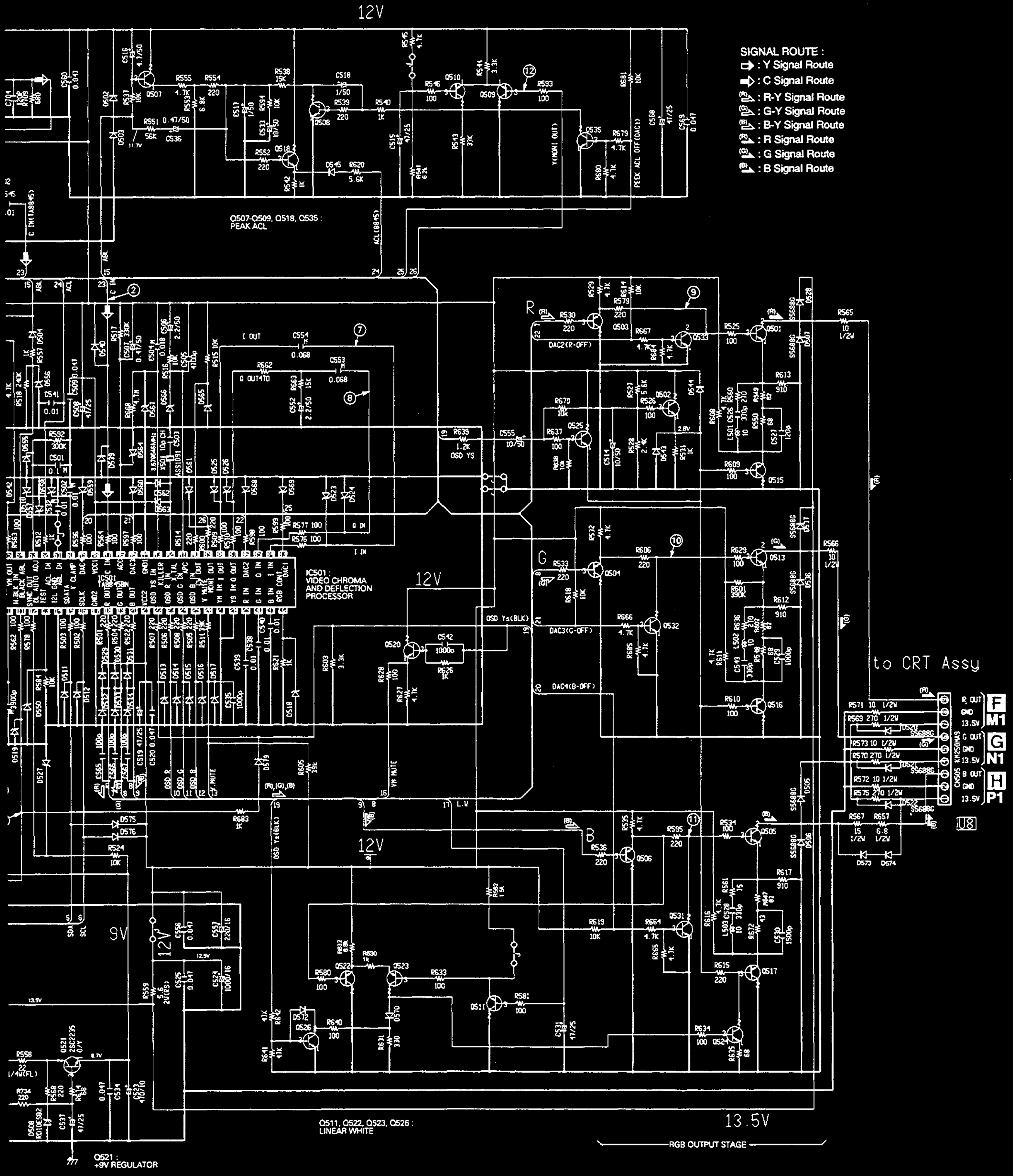
A-a A-b

**A** TUNER • VIDEO ASSY (2/3) (AWZ6185)
• VIDEO BLOCK



Q701 : CHROMA BPF
C701 0.01
R703 100
R701 10K
R702 10K
R704
C702 120p
L701 100
R706 750
L702 15
L704 10
R707
C703 68p
L703
R708
C544 68p
R613 12K
R644 2.2K
R645 100
R710 3.3K
R711 100
R712 470
R646 270
R673 560
Q527
Q527, Q702 : CHROMA AMP
C IN
56
12V
Q512, Q519 : BUFFER
R622 1K
R623 100
Q519
Q512
R588 100
R556 12K
R624 2.2K
C546 100p
R590 220
R589 4.7K
V.BLK
R669 10K
Q514
R586 10K
R587 22K
R585 4.7K
Q514 : BUFFER
R661 1K
D578
C521 0.1
D541
R514
R719 510K
R718 1M
R625
D551
D552
C548 2.2/50
R513 120K
C547 10/50
R519 3.3K
R659 22K
R660 15K
D554
D553
C551 2.2/50
R591 12K
Q528
R647 100
R716 820
DL701 ATN1012 800n
R687 100
Q536
R617 4.7K
R717 820
R688 8.2K
R649 100
Q529
C559 47/25
C570 0.01
R650 820
R648 100
C558 0.1
D577
D575
C562 47/25
Q529, Q536 : BUFFER
D571
C512 2.2/50
D546
D547
C510 0.012
X502
R523 360
C522 47/25
ASS1019
D548
D501 02.2ES81-1P
D509
D549
C513
R520 100
C511 1/50
R521 5.6K
1/2W 220
R603
R583 5.6K
9V
NC NC V.SYNC SEP V.PUL OUT AFC SYNC IN 32fH VCO 12L VCO DEF VCC BLACK PEAK H OUT Y IN BLACK SP X-RAY DC ADJ AFC2
R658 1.2K
R713 6.8K
C550 47/25
C549 0.047
R714 100
Q703
R715 5.6K
C705 100/10
Y
Q528, Q703 : CURRENT TRANSMISSION ACCEPTOR
Q530, Q534 : BUFFER
R615 8.2K
R651 100
H.BLK
R653 10K
Q530
R656 8.2K
R654 2.7K
R655 100
R652 100
Q534
H.DRIVE
A1/3
REG +9V
U3
KP250NA12 CN501
Y.OUT
GND
C.OUT
GND
H.BLK
V.BLK
+13.5V
TV.GND
TV +9V
SCL
SDA
CC.MUTE
B3/3 A3
A1/3
TV +9V
TV GND
u-com BLOCK
CC.MUTE
S-OX
H.DRV
V.BLK
VM.Y
STB.+5V
+13.5V
+12V.STB
SCL
SDA
GND
V.MUTE
OSD.R
OSD.G
OSD.B
OSD.BLK
ABL
L.V.
H.BLK
A3/3
63 41 16 18
CN506 KP250NA15
U9
-25V P.-25V C.GND C.GND +25V P.O +25/35V A.GND A.GND TV +9V PIN.KEY HV.PARA VM.MUTE STB.5V
C1/3 G3
CN907 AKT1019
-25V +25V C.GND P.-25V P.-25V +25/35V A.GND TV +9V P.O +13.5V +13.5V PIN.KEY HV.PARA
U7
M K4

## A-b


12V
Q507-Q509, Q518, Q535 :
PEAK ACL
IC501 :
VIDEO CHROMA
AND DEFLECTION
PROCESSOR
12V
R
G
B
DAC2(R-OFF)
DAC3(G-OFF)
DAC4(B-OFF)
OSD YS
I OUT
Q OUT
I IN
Q IN
to CRT Assy
R OUT
GND
13.5V
G OUT
GND
13.5V
B OUT
GND
13.5V
F
M1
G
N1
H
P1
U8
9V
12V
Q511, Q522, Q523, Q526 :
LINEAR WHITE
Q521 :
+9V REGULATOR
13.5V
RGB OUTPUT STAGE

SIGNAL ROUTE :
- ⇨ : Y Signal Route
- ➡ : C Signal Route
- (R) : R-Y Signal Route
- (G) : G-Y Signal Route
- (B) : B-Y Signal Route
- (R) : R Signal Route
- (G) : G Signal Route
- (B) : B Signal Route

1.RESISTERS indicated in 1/2W.1/4W.1WFL.2WFL 5%
tolerence unless otherwise noted K;KΩ, M;MΩ
(F)+1% , (G)+2% , (K)+10% , (M)+20% tolerence

2.CAPACITORS indicated in capasity ( F)/( V) unless otherwise noted pF
indicated without voltage is 50V except electrolytic capacitor

NOTE :

HSS104-02

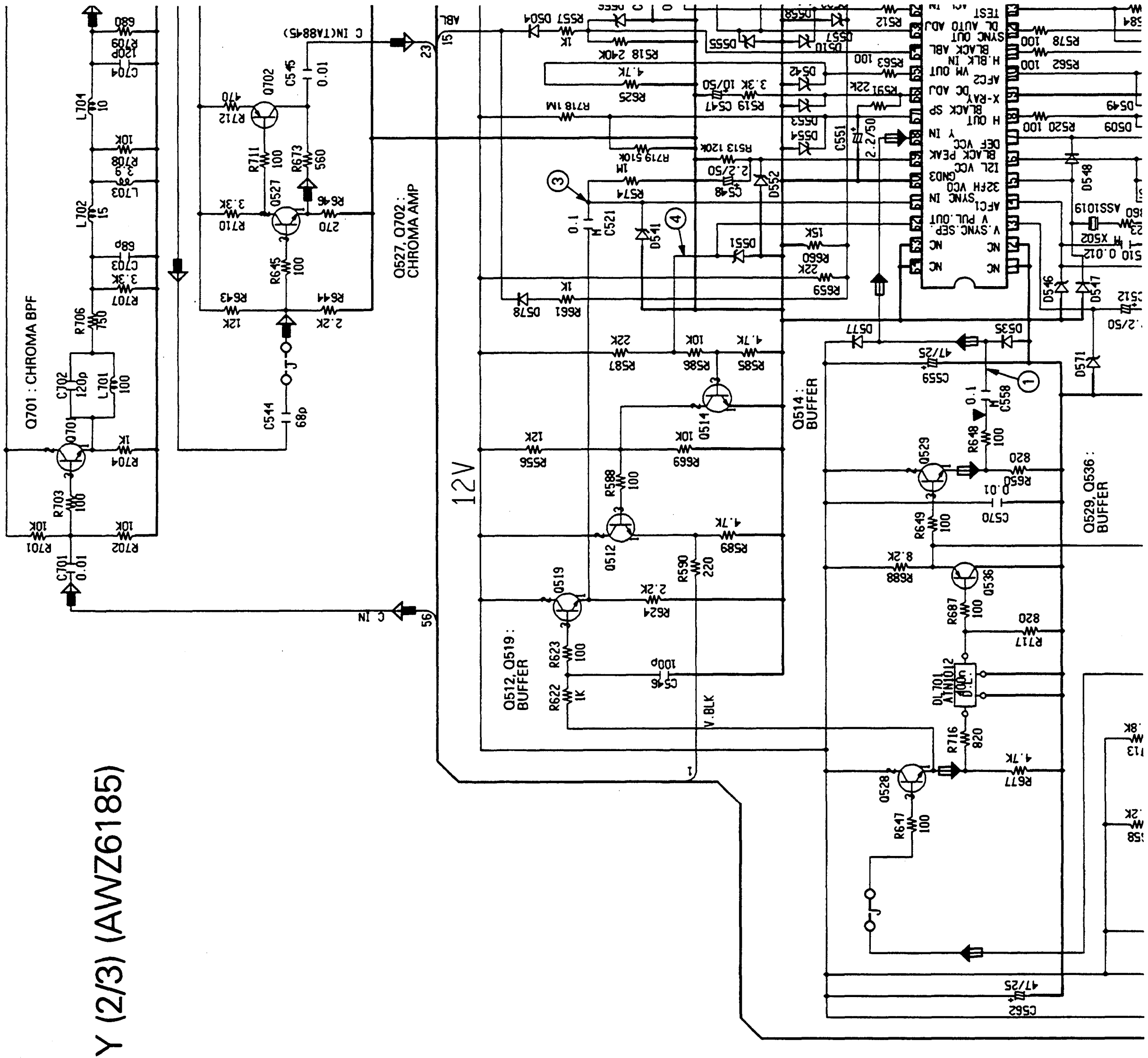
MTZJ15

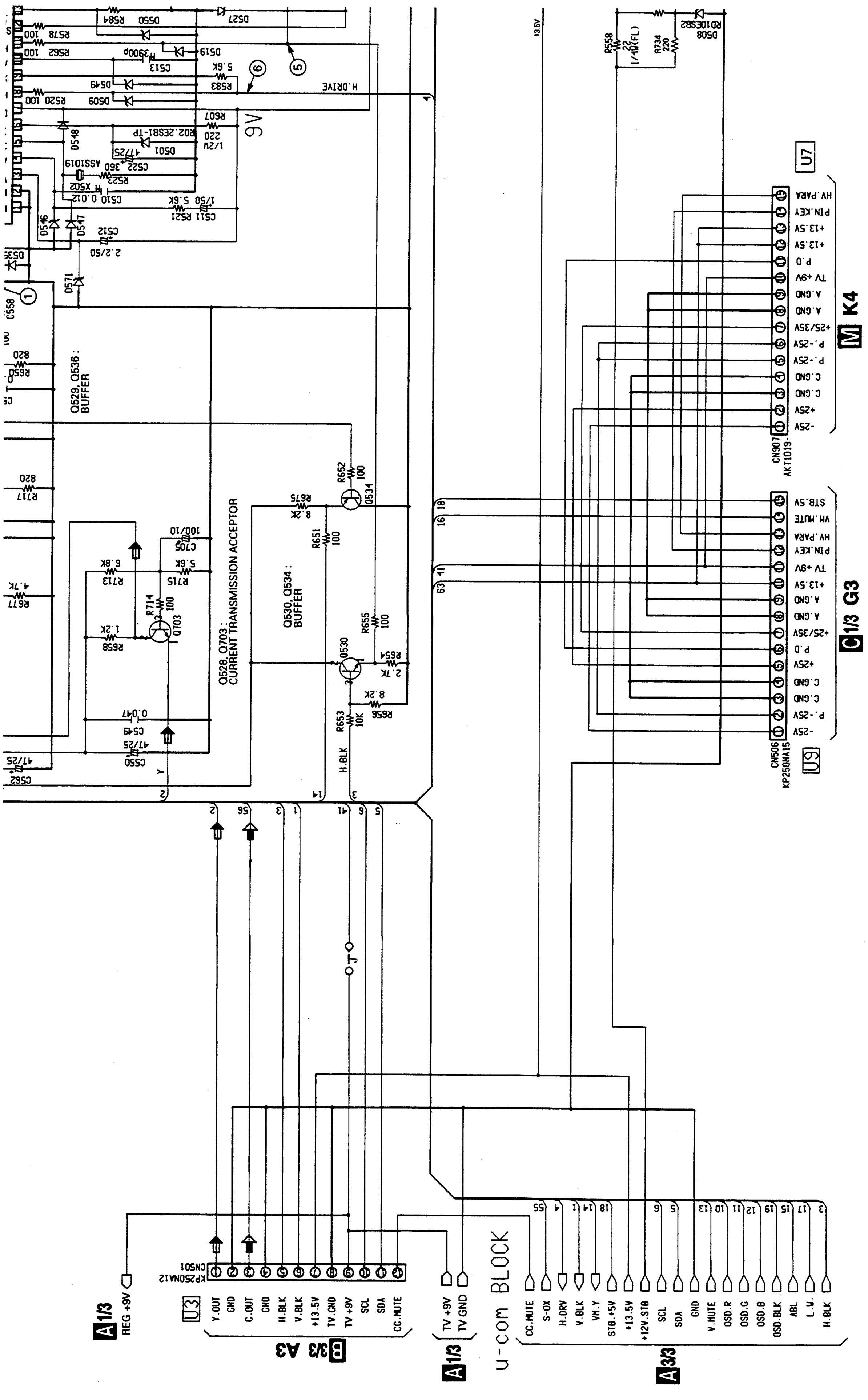
2SA933S

2SC1740S

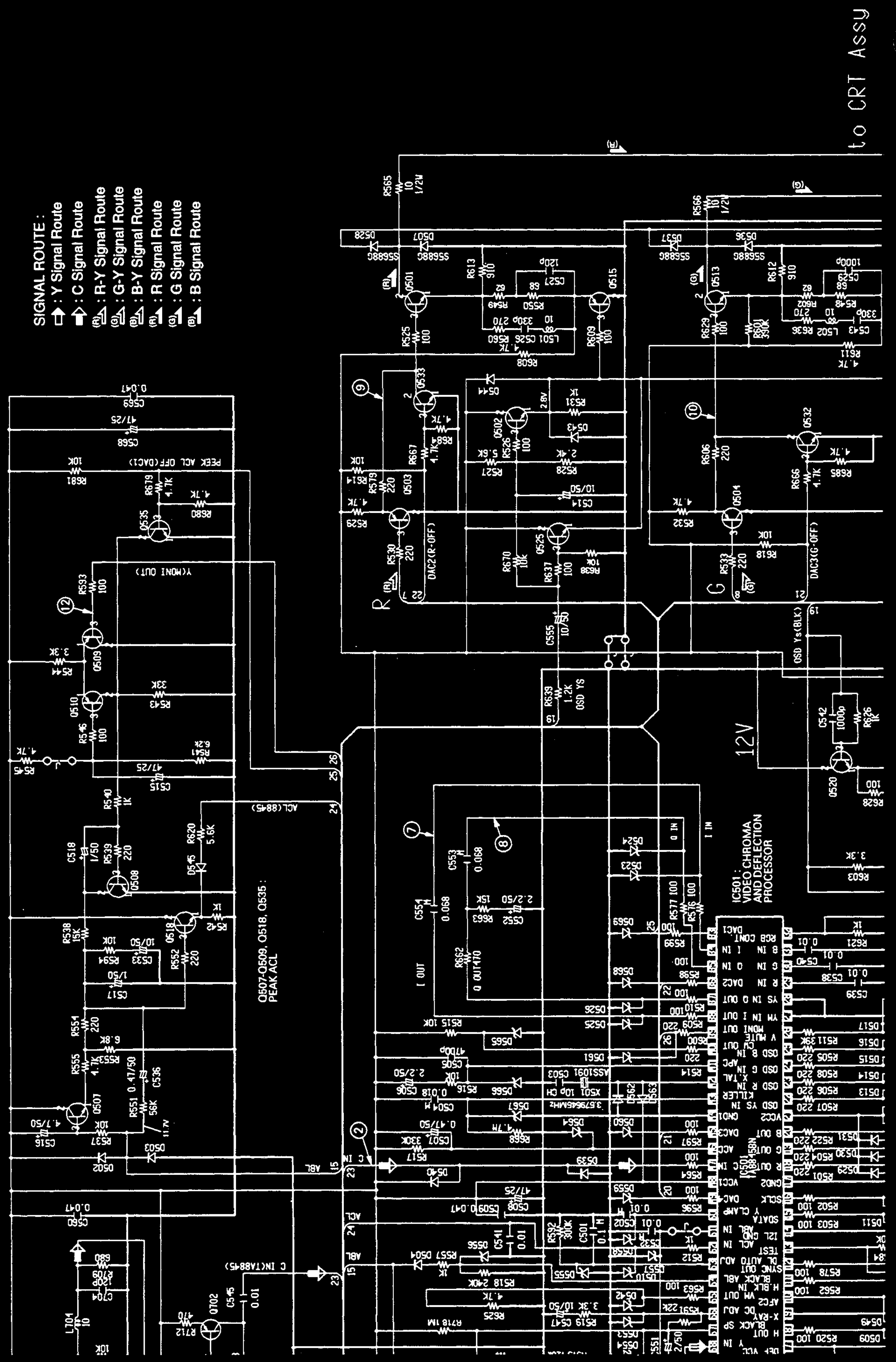
## A TUNER • VIDEO ASSY (2/3) (AWZ6185)

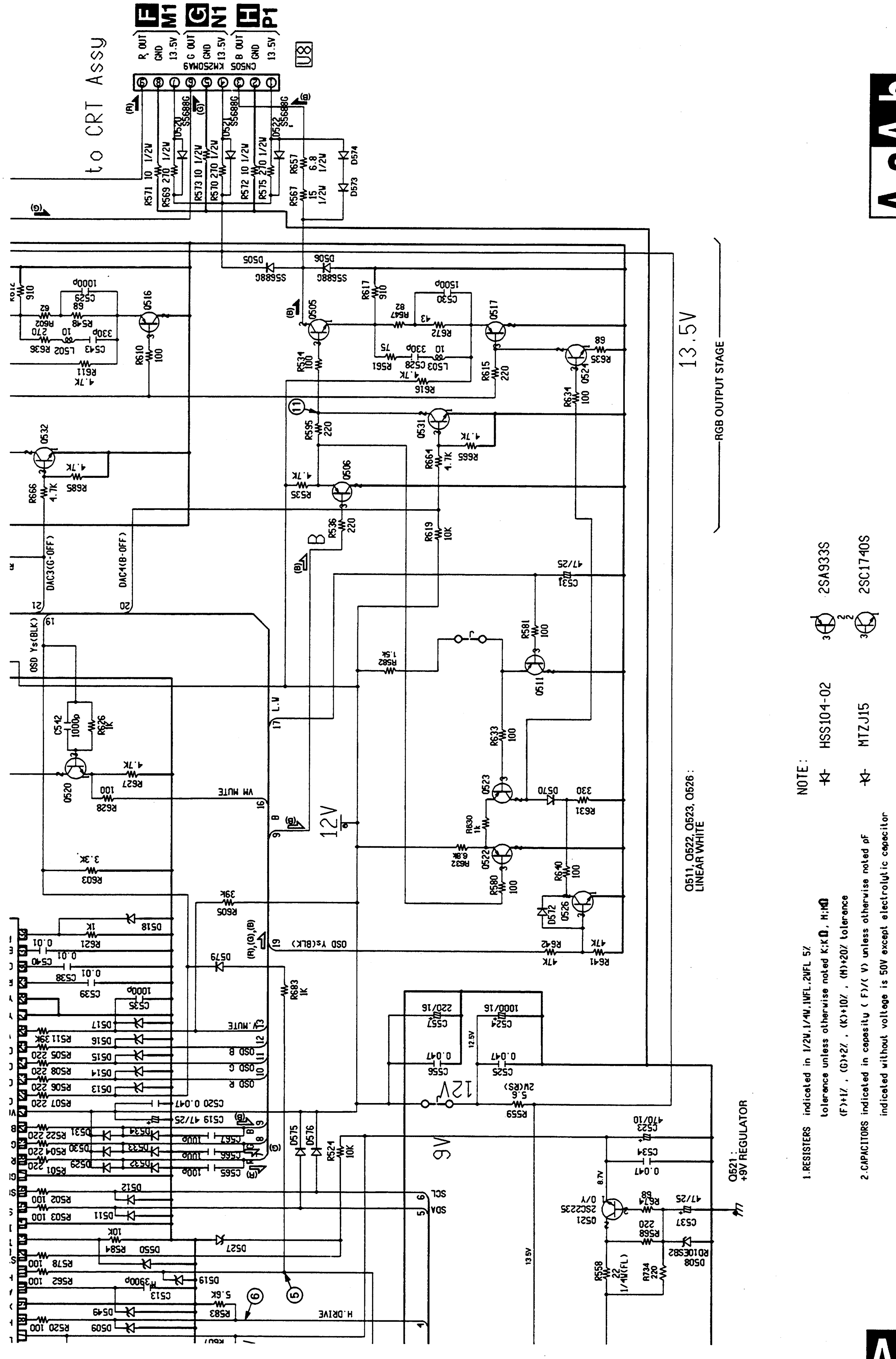
• VIDEO BLOCK


Q701 : CHROMA BPF
Q527, Q702 : CHROMA AMP
Q512, Q519 : BUFFER
Q514 : BUFFER
Q529, Q536 : BUFFER
12V
V.BLK
C IN
C IN(TA8845)
ABL
R701 10K
R702 10K
C701 0.01
R703 100
R704 1K
C702 120p
L701 100
R706 750
R707 3.3K
C703 68p
L702 15
L703
R708 3.9
10K
L704 10
C704 120P
R709 680
R710 3.3K
R711 100
R712 470
R673 560
R645 100
R646 270
R643 12K
R644 2.2K
C544 68p
C545 0.01
R622 1K
R623 100
C546 100p
R624 2.2K
R590 220
R589 4.7K
R588 100
R556 12K
R669 10K
R587 22K
R586 10K
R585 4.7K
R661 1K
D578
R659
R660 22K
15K
D551
D541
C521 0.1
R574 1M
C548 2.2/50
D552
R513 120K
R719 510K
R718 1M
R625 4.7K
R518 240K
R557 1K
D504
R519 3.3K C547 10/50
D577
D535
C559 47/25
C558 0.1
R648 100
R650 820
C570 0.01
R649 100
R688 8.2K
R687 100
R717 820
DL701 ATN1012
R716 820
R677 4.7K
R647 100
C562 47/25
Q701
Q702
Q527
Q519
Q512
Q514
Q529
Q536
Q528
TEST
DL AUTO ADJ
SYNC OUT
BLACK ABL
H.BLK IN
VM OUT
AFC2
DC ADJ
X-RAY
BLACK SP
H OUT
Y IN
DEF VCC
BLACK PEAK
I2L VCC
GND3
32fH VCO
SYNC IN
AFC1
V PUL.OUT
V.SYNC.SEP
NC
R563 100
R591 22K
C551 2.2/50
R578 100
R562 100
R520 100
D509
D549
D548
ASS1019
X502
C510 0.012
D546
D547
D571
C512 2/50
R512
D555
D557
D558
D510
D542
D553
D554
15
23
56
①
③
④


A-a A-b
A 1/3
REG +9V
U3
Y.OUT
GND
C.OUT
GND
H.BLK
V.BLK
+13.5V
TV.GND
TV +9V
SCL
SDA
CC.MUTE
CN501
KP25ONA12
B 3/3 A3
A 1/3
TV +9V
TV GND
u-com BLOCK
CC.MUTE
S-OX
H.DRV
V.BLK
VH.Y
STB.+5V
+13.5V
+12V.STB
SCL
SDA
GND
V.MUTE
OSD.R
OSD.G
OSD.B
OSD.BLK
ABL
L.V.
H.BLK
A 3/3
J
U9
CN506
KP25ONA15
-25V
P.-25V
C.GND
C.GND
+25V
P.D
+25/35V
A.GND
A.GND
+13.5V
TV +9V
PIN.KEY
HV.PARA
VM.MUTE
STB.5V
C 1/3 G3
CN907
AKT1019-
-25V
+25V
C.GND
C.GND
P.-25V
P.-25V
+25/35V
A.GND
A.GND
TV +9V
P.D
+13.5V
+13.5V
PIN.KEY
HV.PARA
M K4
U7
13.5V
R558 22 1/4W(FL)
R734 220
D508 RD10ES82
Q529, Q536 : BUFFER
Q528, Q703 : CURRENT TRANSMISSION ACCEPTOR
Q530, Q534 : BUFFER
R652 100
Q534
R675 8.2K
R651 100
R655 100
Q530
R654 2.7K
R656 8.2K
R653 10K
H.BLK
R714 100
Q703
R713 6.8K
R715 5.6K
C705 100/10
R658 1.2K
0.047
C549 47/25
C550 47/25
C562 47/25
Y
R677 4.7K
R717 820
R650 820
C558
D571
D532
C512 2.2/50
D546
D547
C510 0.012
X502
R523
C522 .360
ASS1019
47/25
D501
R02.2ES81-TP
D548
220 1/2W
R607
9V
D509
R520 100
D549
R583 5.6K
H.DRIVE
C513 3900p
D519
R562 100
R578 100
D550 R584
D527
C511 R521 1/50 5.6K
①
⑤
⑥
2
14
3
56
1
41
6
5
18
16
41
63
55
4
1
14
18
6
5
13
10
11
12
19
15
17
3

A-a A-b


SIGNAL ROUTE :
⇧ : Y Signal Route
⬆ : C Signal Route
(R-Y) : R-Y Signal Route
(G-Y) : G-Y Signal Route
(B-Y) : B-Y Signal Route
(R) : R Signal Route
(G) : G Signal Route
(B) : B Signal Route
to CRT Assy
12V
IC501 : VIDEO CHROMA AND DEFLECTION PROCESSOR
Q507-Q509, Q518, Q535 : PEAK ACL
DAC2(R-OFF)
DAC3(G-OFF)
OSD YS(BLK)
Y(MONI OUT)
PEEK ACL OFF(DAC1)
ACL(8845)
C IN(TA8845)
ABL
ACL
C IN
R
G


to CRT Assy
CN505 KM250MA9
R OUT
GND
13.5V
G OUT
GND
13.5V
B OUT
GND
13.5V
F M1
G N1
H P1
U8
13.5V
RGB OUTPUT STAGE
12V
9V
DAC3(G-OFF)
DAC4(B-OFF)
OSD Ys(BLK)
VM MUTE
H.DRIVE
SCL
SDA
Q505
Q506
Q511
Q516
Q517
Q520
Q521 2SC2235 0/Y
Q522
Q523
Q524
Q526
Q531
Q532
Q511, Q522, Q523, Q526 : LINEAR WHITE
Q521 : +9V REGULATOR

NOTE :

HSS104-02

MTZJ15

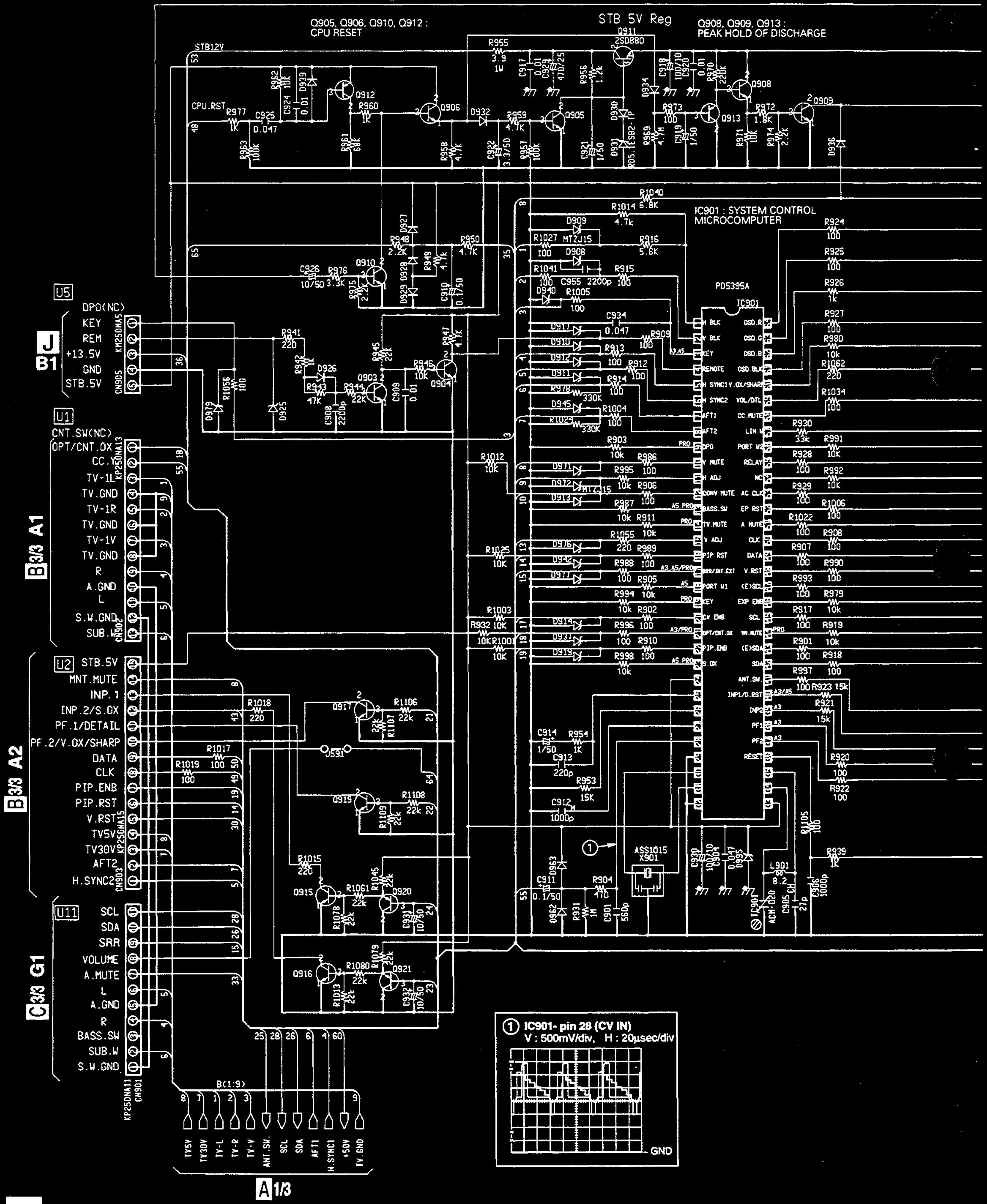
2SA933S

2SC1740S

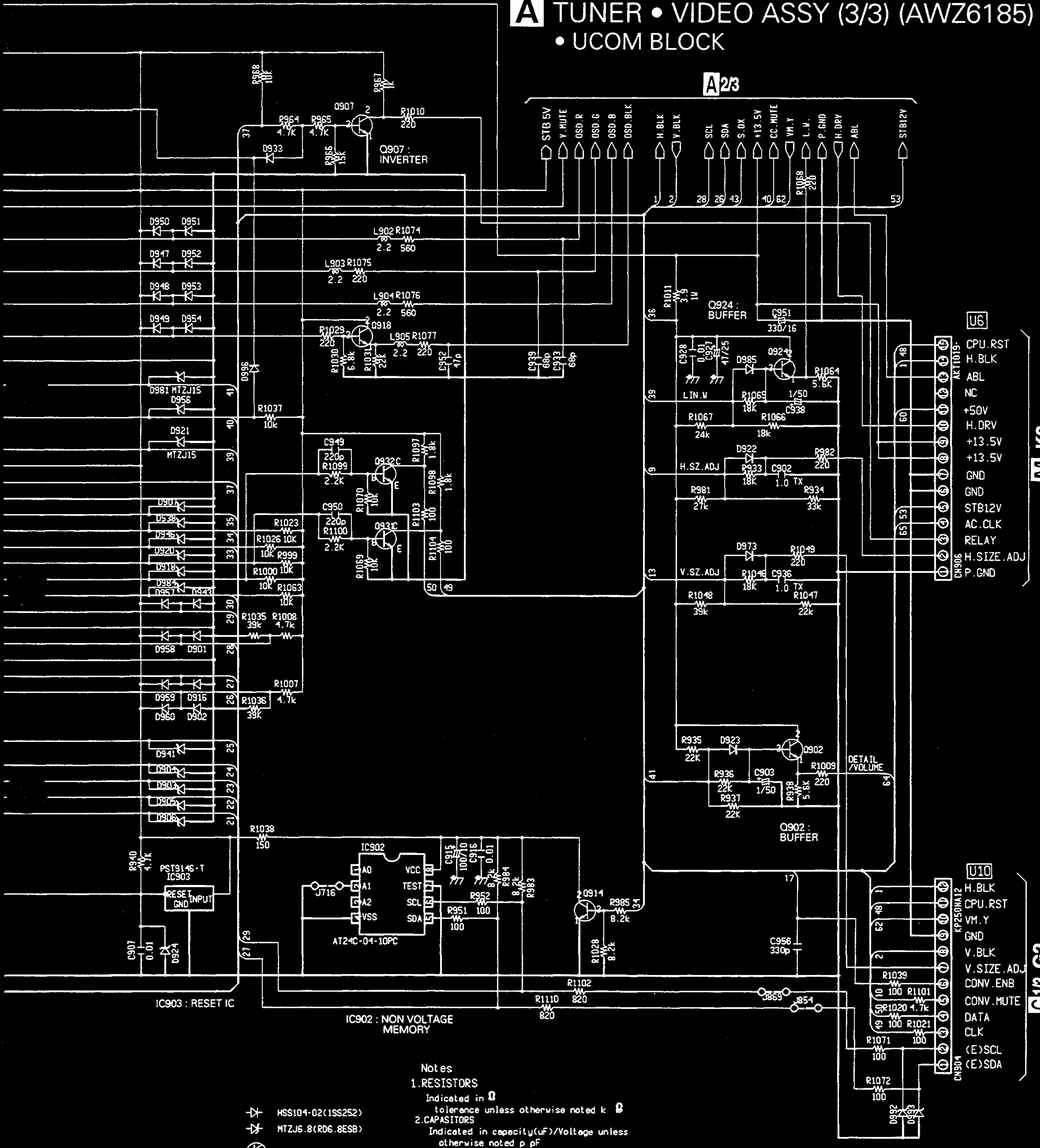
1.RESISTORS indicated in 1/2W,1/4W,1WFL,2WFL 5% tolerance unless otherwise noted K:kΩ, M:MΩ
(F)±1%, (G)±2%, (K)±10%, (M)±20% tolerance

2.CAPACITORS indicated in capacity (μF)/(V) unless otherwise noted pF
indicated without voltage is 50V except electrolytic capacitor

## 3.4 TUNER•VIDEO ASSY (3/3)


Q905, Q906, Q910, Q912 : CPU RESET
STB 5V Reg
Q911 2SD880
Q908, Q909, Q913 : PEAK HOLD OF DISCHARGE
STB12V
CPU.RST
IC901 : SYSTEM CONTROL MICROCOMPUTER
PD5395A
IC901
U5
DPO(NC)
KEY
REM
+13.5V
GND
STB.5V
J B1
CN905 KM250NA5
U1
CNT.SW(NC)
OPT/CNT.OX
CC.Y
TV-1L
TV.GND
TV-1R
TV.GND
TV-1V
TV.GND
R
A.GND
L
S.W.GND
SUB.W
CN902 KP250NA13
B3/3 A1
U2
STB.5V
MNT.MUTE
INP.1
INP.2/S.OX
PF.1/DETAIL
PF.2/V.OX/SHARP
DATA
CLK
PIP.ENB
PIP.RST
V.RST
TV5V
TV30V
AFT2
H.SYNC2
CN903 KP250NA15
B3/3 A2
U11
SCL
SDA
SRR
VOLUME
A.MUTE
L
A.GND
R
BASS.SW
SUB.W
S.W.GND
CN901 KP250NA11
C3/3 G1
B(1:9)
TV5V
TV30V
TV-L
TV-R
TV-V
ANT.SW.
SCL
SDA
AFT1
H.SYNC1
+50V
TV.GND
A1/3
ASS1015 X901
①
① IC901- pin 28 (CV IN)
V : 500mV/div, H : 20µsec/div
GND

# A TUNER • VIDEO ASSY (3/3) (AWZ6185)
## • UCOM BLOCK


A2/3
STB 5V
V.MUTE
OSD.R
OSD.G
OSD.B
OSD.BLK
H.BLK
V.BLK
SCL
SDA
S.OX
+13.5V
CC.MUTE
VM.Y
L.W.
P.GND
H.DRV
ABL
STB12V
Q907
Q907 : INVERTER
R968 10k
R967 1k
R964 4.7k
R965 4.7k
R966 15k
R1010 220
D933
D950 D951
D947 D952
D948 D953
D949 D954
L902 R1074 2.2 560
L903 R1075 2.2 220
L904 R1076 2.2 560
L905 R1077 2.2 220
Q918
R1029 220
R1030 6.8k
R1031 22k
C952 47p
C939 68p
C933 68p
D996
D981 MTZJ15
D956
D921
MTZJ15
R1037 10k
C949 220p
R1099 2.2k
Q932
R1097 1.8k
R1098 1.8k
R1070 10k
C950 220p
R1100 2.2k
Q931
R1103 100
R1104 100
R1069 10k
D904 D938 D946 D920 D918 D984 D957 D943
R1023
R1026 10k
R999 10k
R1000 10k
R1063 10k
R1035 39k
R1008 4.7k
D958 D901
R1007 4.7k
D959 D916
D960 D902
R1036 39k
D941 D904 D903 D905 D906
R1038 150
R940 4.7k
PST9146-T IC903
RESET INPUT GND
C907 0.01
D924
IC903 : RESET IC
IC902
A0 A1 A2 VSS VCC TEST SCL SDA
AT24C-04-10PC
J716
C915 100/10
C916 0.01
R984 8.2k
R983 8.2k
R952 100
R951 100
IC902 : NON VOLTAGE MEMORY
Q914
R985 8.2k
R1028 8.2k
R1102 820
R1110 820
J869 J854
R1011 3.9 1W
Q924 : BUFFER
C951 330/16
C928 0.01
C927 47/25
D985
Q924
R1064 5.6k
LIN.W
R1065 18k
C938 1/50
R1067 24k
R1066 18k
D922
H.SZ.ADJ
R933 18k
C902 1.0 TX
R982 220
R981 27k
R934 33k
D973
R1049 220
V.SZ.ADJ
R1046 18k
C936 1.0 TX
R1048 39k
R1047 22k
R935 22k
D923
Q902
R1009 220
DETAIL /VOLUME
R936 22k
C903 1/50
R938 5.6k
R937 22k
Q902 : BUFFER
R1068 220
C956 330p
U6
CN906 AKT1019-
CPU.RST
H.BLK
ABL
NC
+50V
H.DRV
+13.5V
+13.5V
GND
GND
STB12V
AC.CLK
RELAY
H.SIZE.ADJ
P.GND
M K3
U10
CN904 KP250NA12
H.BLK
CPU.RST
VM.Y
GND
V.BLK
V.SIZE.ADJ
CONV.ENB
CONV.MUTE
DATA
CLK
(E)SCL
(E)SDA
C1/3 G2
R1039 100
R1101 100
R1020 4.7k
R1021 100
R1071 100
R1072 100
D992 D993

Notes
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k Ω
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless
otherwise noted p pF
Indication without voltage is 50V except electrolytic capacitor.

HSS104-02(1SS252)
MTZJ6.8(RD6.8ESB)
2SC1740S
2SA933S

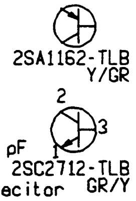
## 3.5 AV I/O ASSY (1/3)

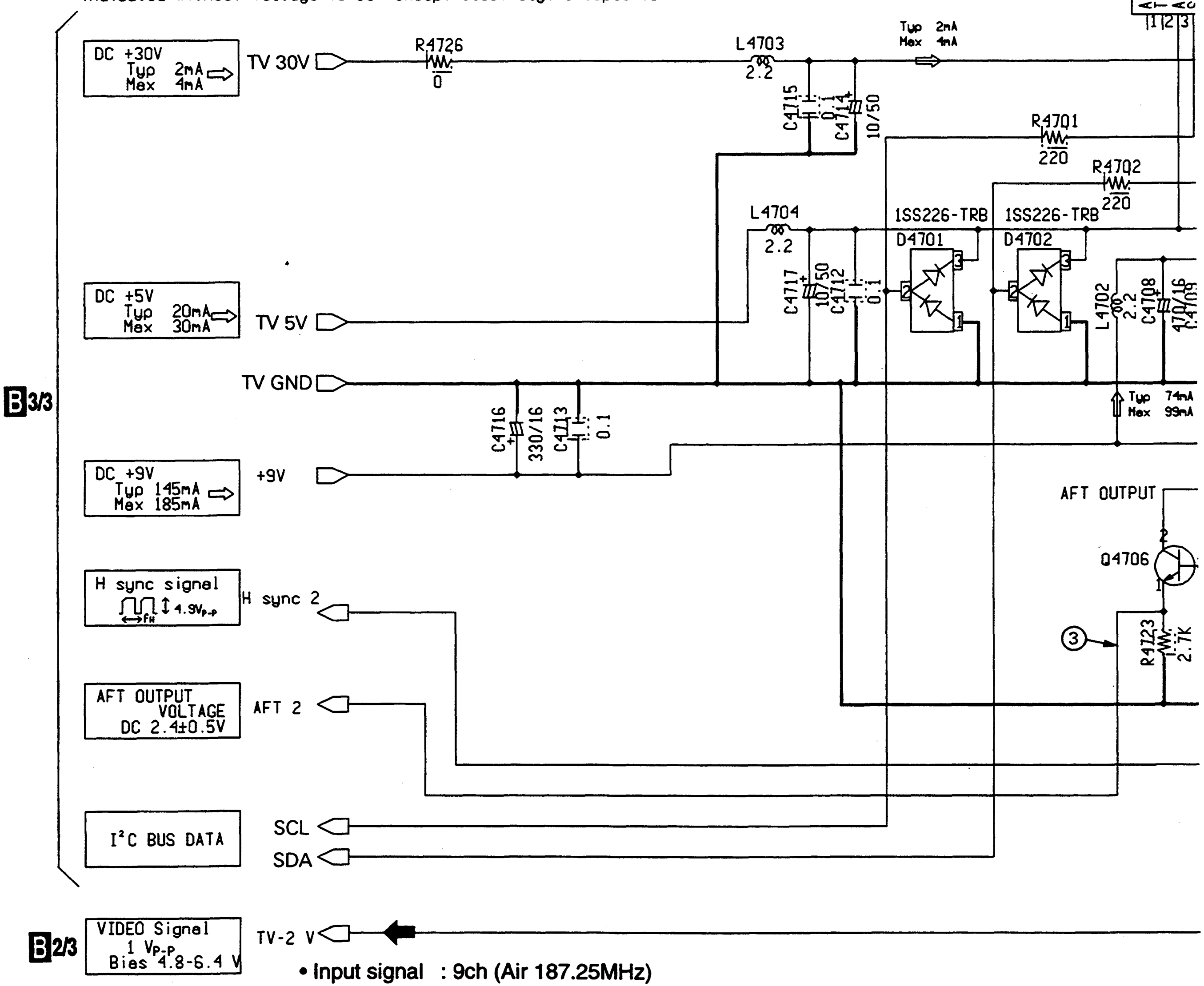
# B AV I/O ASSY (1/3) (AWZ6197)

• TUNER 2 BLOCK

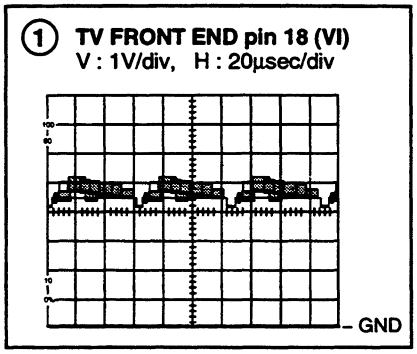
1.RESISTERS indicated in 1/2W,1/4W,1/10W,1WFL,2WFL 5% tolerance unless otherwise noted K;kΩ , M;MΩ (F)+1% , (G)+2% , (K)+10% , (M)+20% tolerance

2.CAPACITORS indicated in capasity ( uF)/( V) unless otherwise noted pF indicated without voltage is 50V except electrolytic capacitor

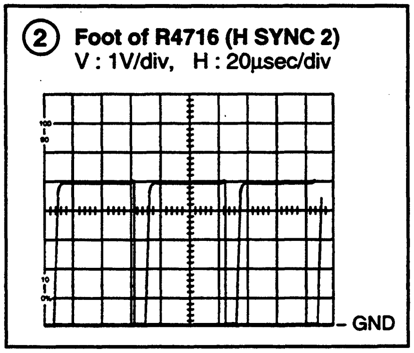

2SA1162-TLB
Y/GR
2
3
1
2SC2712-TLB
GR/Y


TV FR
FROM RF SW
ACC
TV
ADD
1
2
3
DC +30V
Typ 2mA
Max 4mA
TV 30V
R4726
0
L4703
2.2
Typ 2mA
Max 4mA
C4715
0.1
C4714
10/50
R4701
220
R4702
220
L4704
2.2
1SS226-TRB
D4701
1SS226-TRB
D4702
C4717
10/50
C4712
0.1
L4702
2.2
C4708
470/16
C4709
DC +5V
Typ 20mA
Max 30mA
TV 5V
TV GND
B3/3
C4716
330/16
C4713
0.1
Typ 74mA
Max 99mA
DC +9V
Typ 145mA
Max 185mA
+9V
AFT OUTPUT
Q4706
H sync signal
4.9Vp-p
fH
H sync 2
③
R4723
2.7K
AFT OUTPUT VOLTAGE DC 2.4±0.5V
AFT 2
I²C BUS DATA
SCL
SDA
B2/3
VIDEO Signal
1 Vp-p
Bias 4.8-6.4 V
TV-2 V

- Input signal : 9ch (Air 187.25MHz)
- Video signal : Color bar (87.5% Mod., 1kHZ ± 25kHz dev.), 60dBμ input
- Range : DC range (Unless otherwise noted)



① **TV FRONT END pin 18 (VI)**
V : 1V/div, H : 20μsec/div



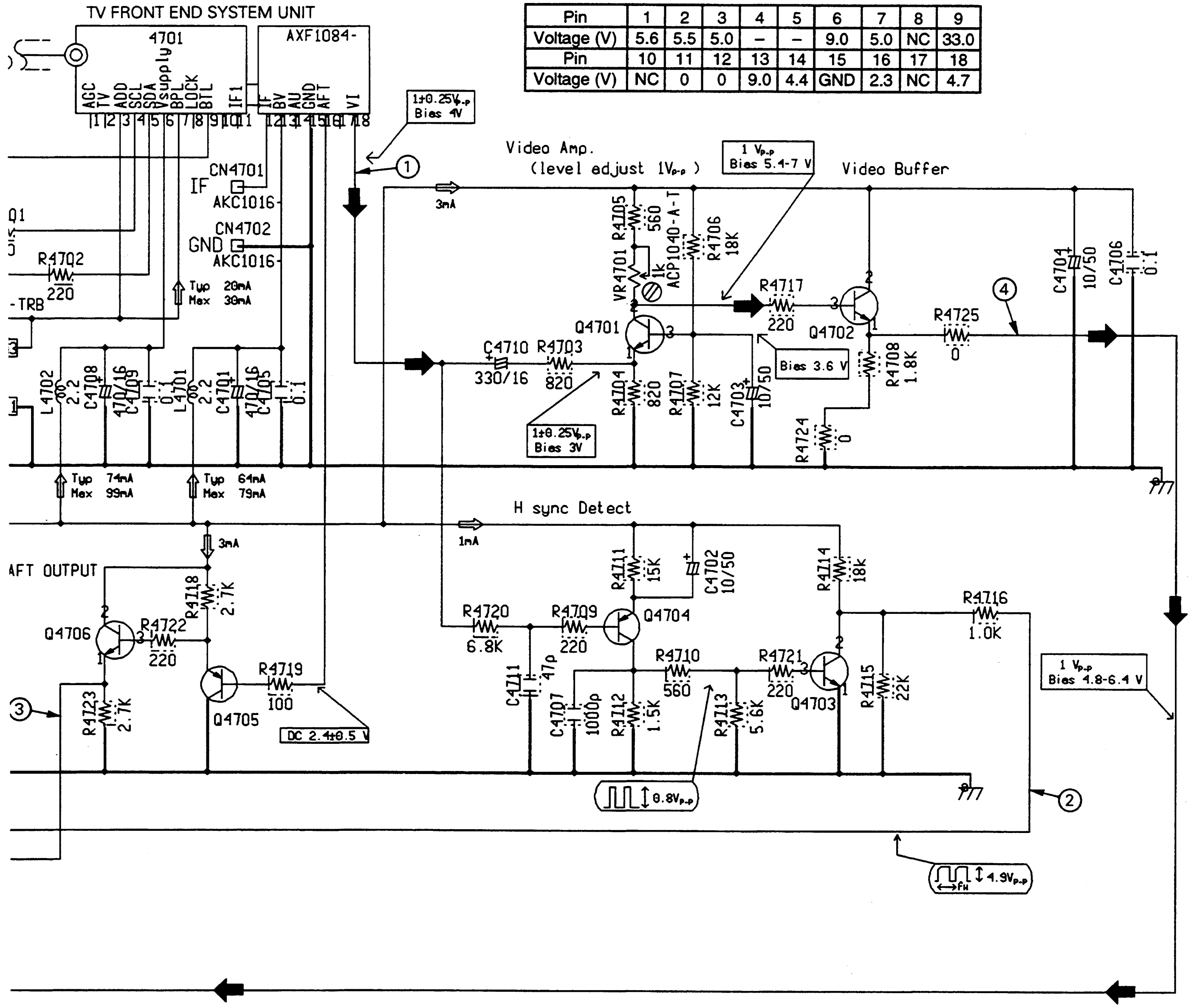
② **Foot of R4716 (H SYNC 2)**
V : 1V/div, H : 20μsec/div

SIGNAL ROUTE :

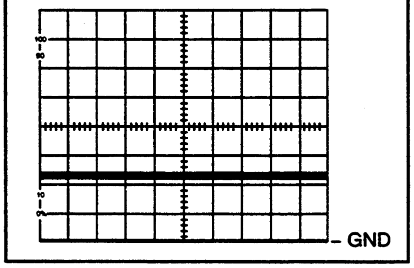
➡ : Video Signal Route

### Voltage of TV FRONT END (AXF1084)

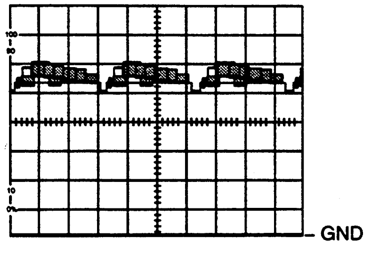
| Pin | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| Voltage (V) | 5.6 | 5.5 | 5.0 | – | – | 9.0 | 5.0 | NC | 33.0 |
| Pin | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| Voltage (V) | NC | 0 | 0 | 9.0 | 4.4 | GND | 2.3 | NC | 4.7 |


TV FRONT END SYSTEM UNIT
4701
AXF1084-
AGC TV ADD SCL SDA Vsupply BPL LOCK BTL IF1
IF BV AU GND AFT VI
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
1±0.25Vp-p Bias 4V
①
CN4701 IF AKC1016
CN4702 GND AKC1016
Q1
R4702 220
-TRB
Typ 20mA Max 30mA
L4702 2.2 C4708 470/16 C4709 0.1
L4701 2.2 C4701 470/16 C4705 0.1
Typ 74mA Max 99mA
Typ 64mA Max 79mA
Video Amp. (level adjust 1Vp-p)
1 Vp-p Bias 5.4-7 V
Video Buffer
3mA
R4705 560
VR4701 1k ACP1040-A-T
R4706 18K
R4717 220
Q4701
Q4702
C4710 330/16
R4703 820
1±0.25Vp-p Bias 3V
R4704 820
R4707 12K
C4703 10/50
Bias 3.6 V
R4708 1.8K
R4724 0
R4725 0
④
C4704 10/50
C4706 0.1
H sync Detect
1mA
3mA
AFT OUTPUT
R4718 2.7K
Q4706
R4722 220
R4723 2.7K
③
Q4705
R4719 100
DC 2.4±0.5 V
R4711 15K
C4702 10/50
R4714 18K
R4720 6.8K
R4709 220
Q4704
C4711 47p
R4710 560
R4721 220
Q4703
C4707 1000p
R4712 1.5K
R4713 5.6K
R4715 22K
R4716 1.0K
1 Vp-p Bias 4.8-6.4 V
0.8Vp-p
②
4.9Vp-p
fH

**③ Q4706 Emitter (AFT 2)**
V : 1V/div, H : 20µsec/div



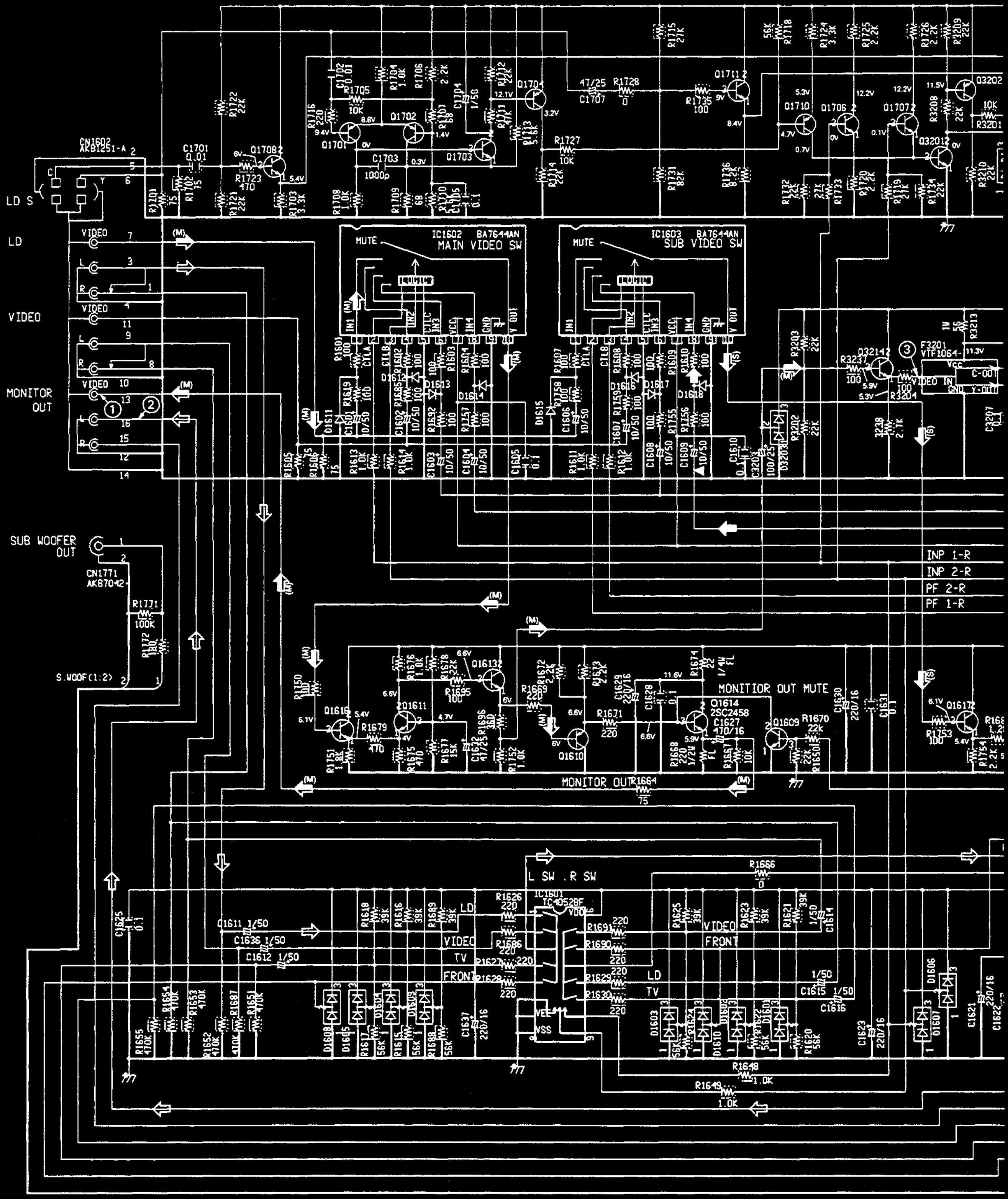
**④ Foot of R4725 (TV 2 V)**
V : 1V/div, H : 20µsec/div



## 3.6 AV I/O ASSY (2/3)

### B AV I/O ASSY (2/3) (AWZ6197)

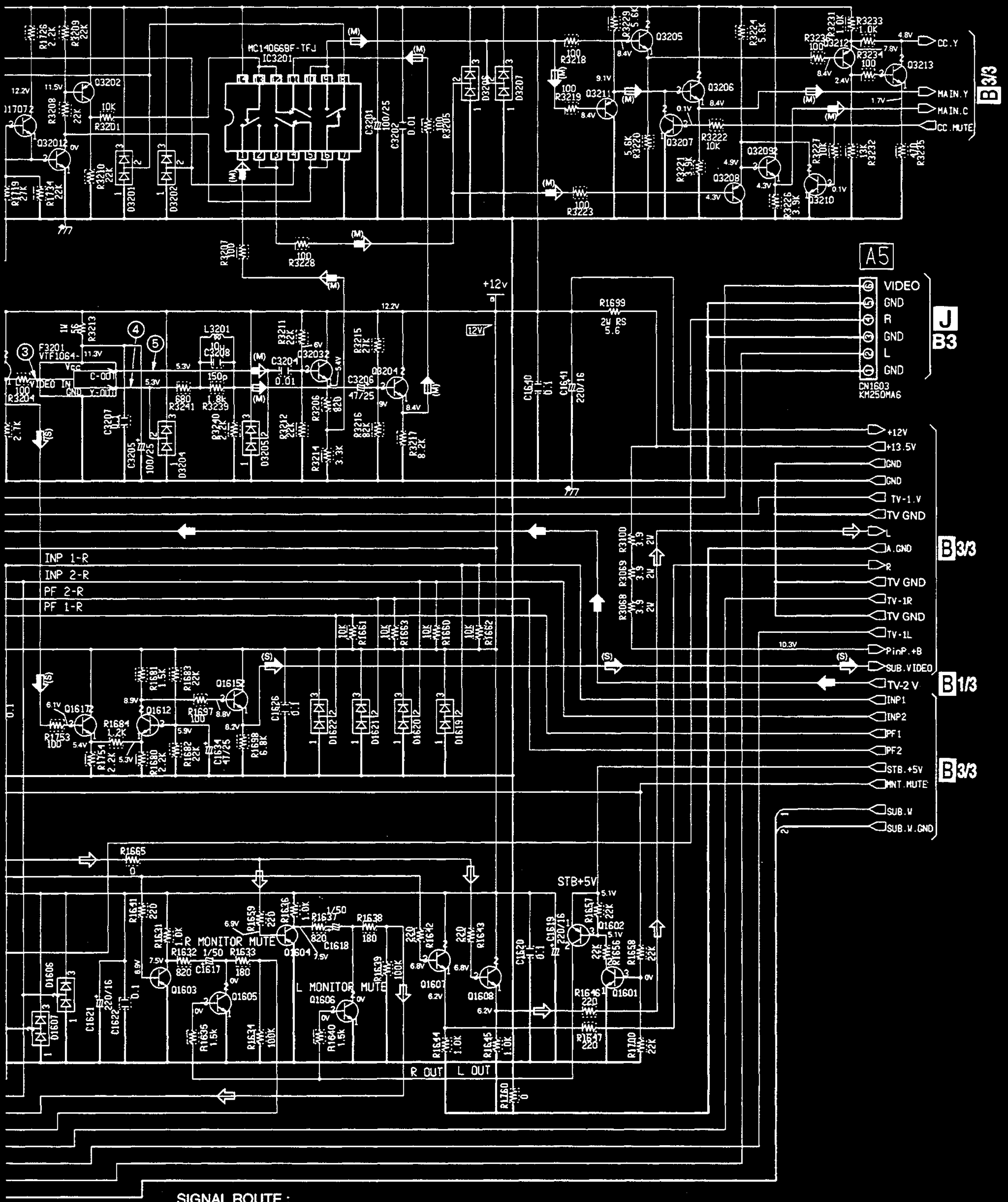
- AV I/O, Y/C SEP, S INPUT AND SUB WOOFER BLOCKS


CN1602
AKB1251-A
LD S
LD
VIDEO
MONITOR OUT
SUB WOOFER OUT
CN1771
AKB7042
S.WOOF(1:2)
IC1602 BA7644AN
MAIN VIDEO SW
IC1603 BA7644AN
SUB VIDEO SW
MUTE
INP 1-R
INP 2-R
PF 2-R
PF 1-R
MONITIOR OUT MUTE
MONITOR OUT
F3201
VTF1064
VIDEO IN
Y-OUT
C-OUT
L SW . R SW
IC1601
TC4052BF
LD
VIDEO
TV
FRONT
VIDEO FRONT
Q1701
Q1702
Q1703
Q1704
Q1706
Q1707
Q1708
Q1710
Q1711
Q3201
Q3202
Q3214
Q1609
Q1610
Q1611
Q1613
Q1614
2SC2458
Q1615
Q1617

NOTE

1.RESISTORS Indicated in 1/2W,1/4W,1/10W,1WFL,2Wfl +5% tolerance unless otherwise notted k:k ,M:M
2.CAPACITORS Indicated in capacity (F)/(V) unless otherwise noted pF.
Indicated without voltage is 50V except electrolytic capacitor.

2SC2712-TLB 2SA1162-TLB 1SS226-TRB 1SS352-TRB


MC14066BF-TFJ
IC3201
Q3202
Q3201
Q3205
Q3206
Q3207
Q3208
Q3209
Q3210
Q3211
Q3212
Q3213
CC.Y
MAIN.Y
MAIN.C
CC.MUTE
B3/3
A5
VIDEO
GND
R
GND
L
GND
CN1603
KM250MA6
J
B3
+12V
F3201
VTF1064-
VIDEO IN
Y-OUT
C-OUT
L3201
R1699
2W RS
5.6
+12V
+13.5V
GND
GND
TV-1.V
TV GND
L
A.GND
R
TV GND
TV-1R
TV GND
TV-1L
PinP.+B
SUB.VIDEO
TV-2 V
INP1
INP2
PF1
PF2
STB.+5V
MNT.MUTE
SUB.V
SUB.V.GND
B1/3
INP 1-R
INP 2-R
PF 2-R
PF 1-R
Q1615
Q1612
Q1617
STB+5V
R MONITOR MUTE
L MONITOR MUTE
Q1601
Q1602
Q1603
Q1604
Q1605
Q1606
Q1607
Q1608
R OUT
L OUT

SIGNAL ROUTE :

➡ : Video Signal Route

(M)➡ : Video Signal Route (Main picture)

(S)➡ : Video Signal Route (Sub picture)

(M)➡ : Y Signal Route (Main picture)

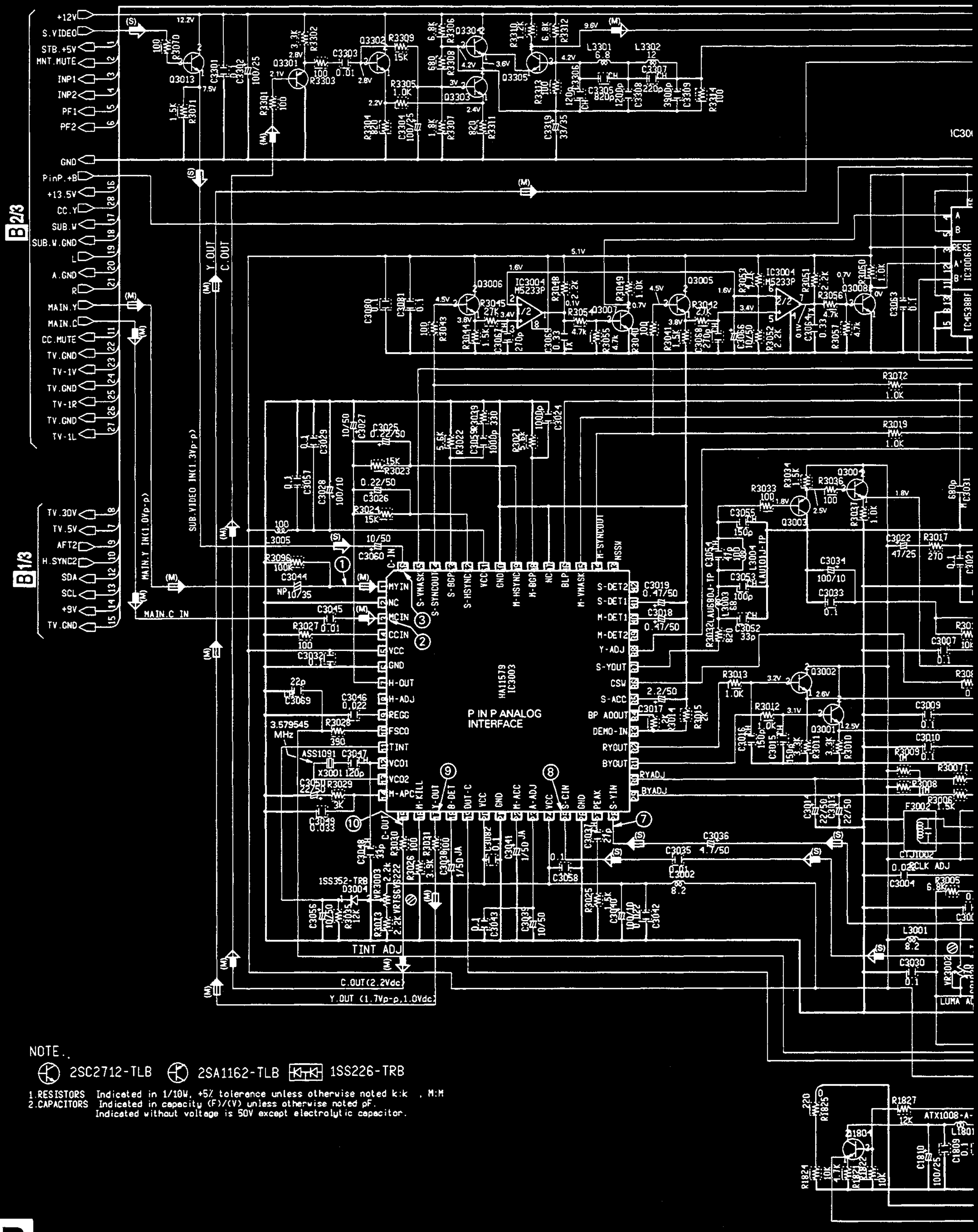
(M)➡ : C Signal Route (Main picture)

⇨ : Audio Signal Route (L ch)

## 3.7 AV I/O ASSY (3/3)

### B AV I/O ASSY (3/3) (AWZ6197)

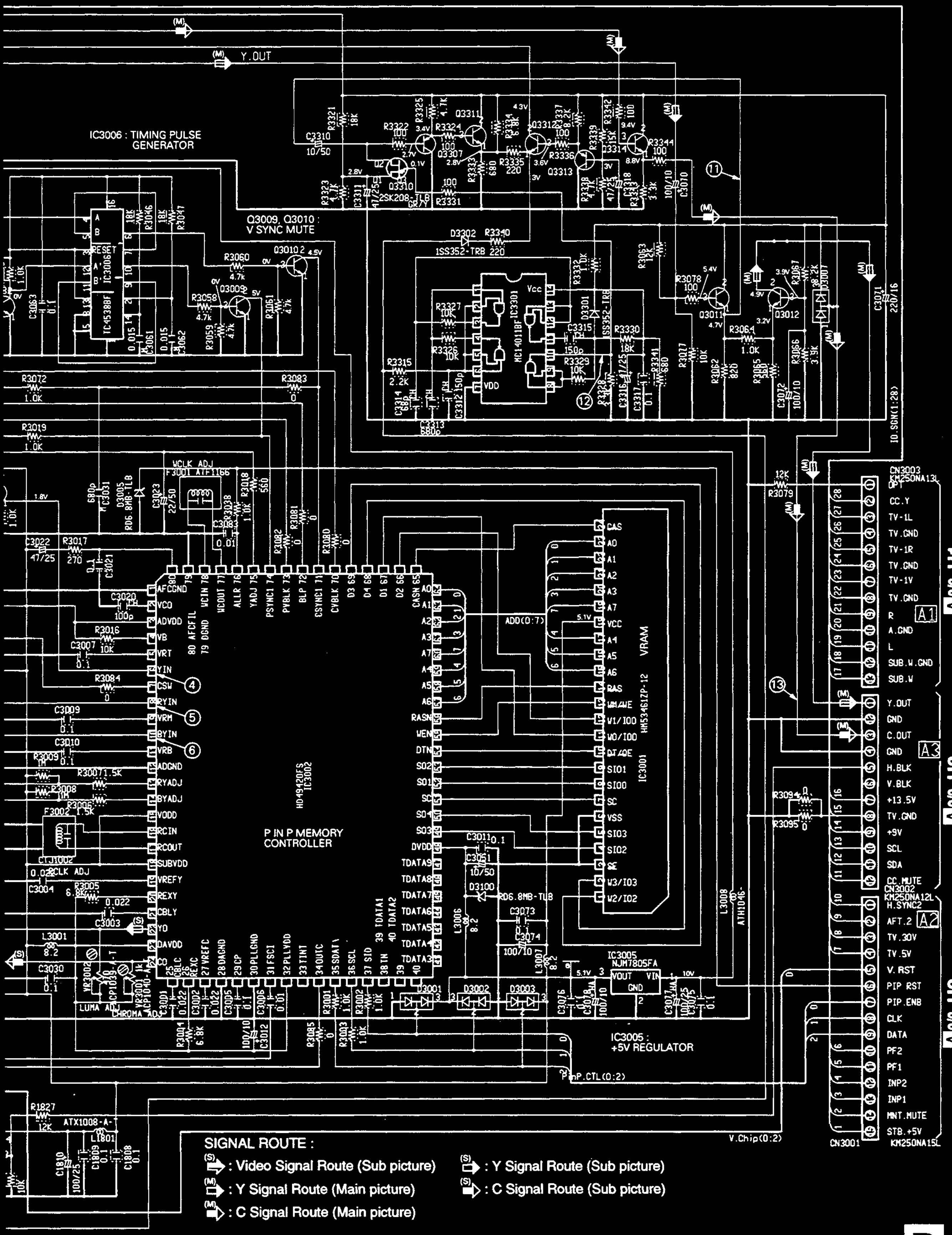
• P IN P AND CNR BLOCKS


+12V
S.VIDEO
STB.+5V
MNT.MUTE
INP1
INP2
PF1
PF2
GND
PinP.+B
+13.5V
CC.Y
SUB.W
SUB.W.GND
L
A.GND
R
MAIN.Y
MAIN.C
CC.MUTE
TV.GND
TV-1V
TV.GND
TV-1R
TV.GND
TV-1L
B2/3
TV.30V
TV.5V
AFT2
H.SYNC2
SDA
SCL
+9V
TV.GND
B1/3
Q3013
Q3301
Q3302
Q3304
Q3303
Q3305
L3301
L3302
IC300
Y.OUT
C.OUT
SUB.VIDEO IN(1.3Vp-p)
MAIN.Y IN(1.0Vp-p)
MAIN.C IN
Q3006
IC3004 M5233P
Q3007
Q3005
Q3008
IC4538BF
IC3006
HA11579 IC3003
P IN P ANALOG INTERFACE
C-IN
MYIN
NC
MCIN
CCIN
VCC
GND
H-OUT
H-ADJ
REGG
FSCO
TINT
VCO1
VCO2
M-APC
S-VMASK
S-SYNCOUT
S-BGP
S-HSYNC
M-HSYNC
M-BGP
BLP
M-VMASK
M-SYNCOUT
NSSW
S-DET2
S-DET1
M-DET1
M-DET2
Y-ADJ
S-YOUT
CSW
S-ACC
BP ADOUT
DEMO-IN
RYOUT
BYOUT
RYADJ
BYADJ
M-KILL
Y-OUT
B-DET
OUT-C
M-ACC
A-ADJ
S-CIN
PEAK
S-YIN
C-OUT
3.579545 MHz
ASS1091
X3001
1SS352-TRB
D3004
VR3003
VR3001
TINT ADJ
C.OUT(2.2Vdc)
Y.OUT (1.7Vp-p,1.0Vdc)
L3005
L3003
L3004
LAU101J-TP
LAU680J-TP
Q3004
Q3003
Q3002
Q3001
F3002
CTJ1002
CLK ADJ
L3001
VR3002
LUMA ADJ
Q1804
ATX1008-A
L1801
① ② ③ ⑦ ⑧ ⑨ ⑩

NOTE..

2SC2712-TLB　2SA1162-TLB　1SS226-TRB

1.RESISTORS Indicated in 1/10W, +5% tolerance unless otherwise noted k:k , M:M
2.CAPACITORS Indicated in capacity (F)/(V) unless otherwise noted pF.
Indicated without voltage is 50V except electrolytic capacitor.


Y.OUT
IC3006 : TIMING PULSE GENERATOR
TC4538BF IC3006
Q3009, Q3010 : V SYNC MUTE
Q3010
Q3009
Q3307
Q3310
Q3311
Q3312
Q3313
2SK208-TLB
D3302
1SS352-TRB
MC14011BF IC3301
Q3011
Q3012
D3007
⑪
⑫
⑬
④
⑤
⑥
WCLK ADJ
F3001 ATF1166
D3005 RD6.8MB-TLB
HD49420FS IC3002
P IN P MEMORY CONTROLLER
HM53461ZP-12 IC3001 VRAM
ADD(0:7)
IC3005 NJM7805FA
IC3005 : +5V REGULATOR
D3001
D3002
D3003
D3100 RD6.8MB-TLB
L3008 ATH1046
LUMA ADJ
CHROMA ADJ
CLK ADJ
ATX1008-A-
L1801
R1827
P.CTL(0:2)
V.Chip(0:2)
IO.SCN(1:28)
CN3003 KM250NA13L
OPT
CC.Y
TV-1L
TV.GND
TV-1R
TV.GND
TV-1V
TV.GND
R
A1
A.GND
L
SUB.W.GND
SUB.W
A3/3 U1
Y.OUT
GND
C.OUT
GND
A3
H.BLK
V.BLK
+13.5V
TV.GND
+9V
SCL
SDA
CC.MUTE
A2/3 U3
CN3002 KM250NA12L
H.SYNC2
AFT.2
A2
TV.30V
TV.5V
V.RST
PIP RST
PIP.ENB
CLK
DATA
PF2
PF1
INP2
INP1
MNT.MUTE
STB.+5V
CN3001 KM250NA15L
A3/3 U2

SIGNAL ROUTE :

(S) : Video Signal Route (Sub picture)

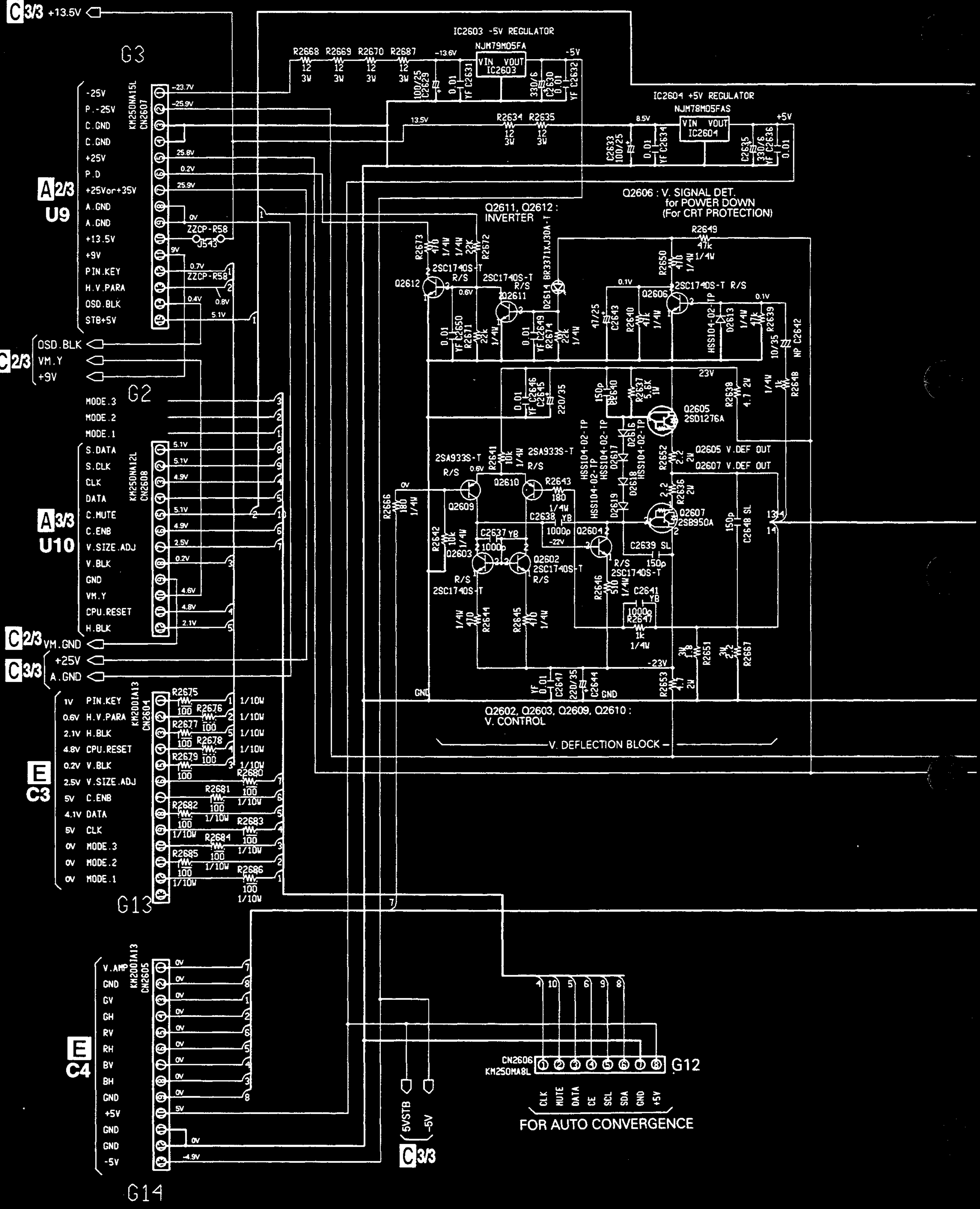
(M) : Y Signal Route (Main picture)

(M) : C Signal Route (Main picture)

(S) : Y Signal Route (Sub picture)

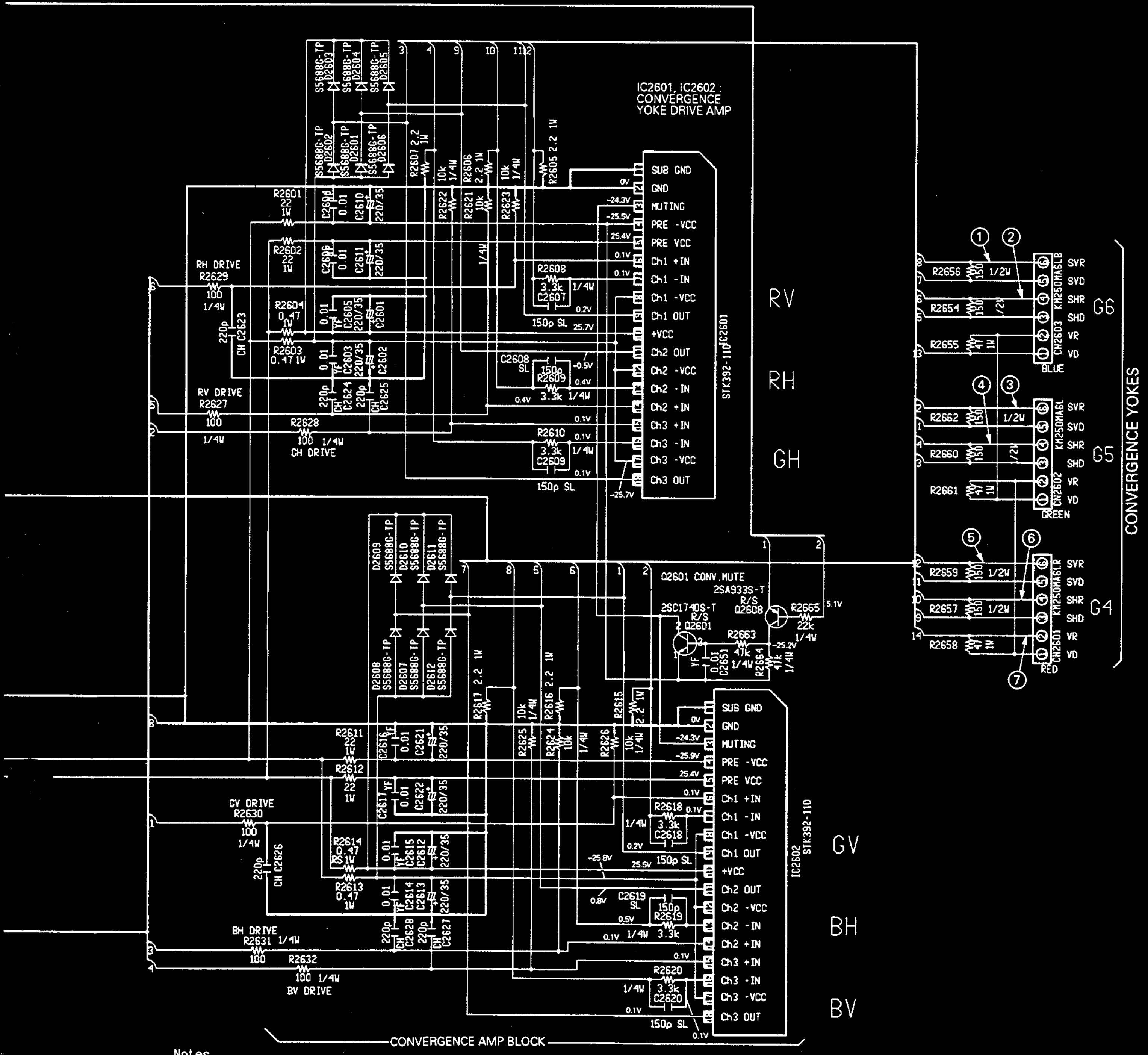
(S) : C Signal Route (Sub picture)

## 3.8 AMP ASSY (1/3)


C 3/3 +13.5V
G3
IC2603 -5V REGULATOR
NJM79M05FA
VIN VOUT
IC2603
R2668 R2669 R2670 R2687
12 3W
-13.6V
-5V
100/25 C2629
0.01 YF C2631
330/6 C2630
0.01 YF C2632
IC2604 +5V REGULATOR
NJM78M05FAS
+5V
13.5V
R2634 R2635 12 3W
8.5V
C2633 100/25
0.01 YF C2634
C2635 330/6
YF C2636 0.01
KM250NA15L CN2607
-25V
P.-25V
C.GND
C.GND
+25V
P.D
+25Vor+35V
A.GND
A.GND
+13.5V
+9V
PIN.KEY
H.V.PARA
OSD.BLK
STB+5V
-23.7V
-25.9V
25.8V
0.2V
25.9V
0V
ZZCP-R58
J543
9V
0.7V
0.4V
0.8V
5.1V
A 2/3
U9
C 2/3
OSD.BLK
VM.Y
+9V
G2
MODE.3
MODE.2
MODE.1
KM250NA12L CN2608
S.DATA
S.CLK
CLK
DATA
C.MUTE
C.ENB
V.SIZE.ADJ
V.BLK
GND
VM.Y
CPU.RESET
H.BLK
5.1V
4.9V
2.5V
0.2V
4.6V
4.8V
2.1V
A 3/3
U10
C 2/3 VM.GND
C 3/3 +25V
A.GND
KM200IA13 CN2604
1V PIN.KEY
0.6V H.V.PARA
2.1V H.BLK
4.8V CPU.RESET
0.2V V.BLK
2.5V V.SIZE.ADJ
5V C.ENB
4.1V DATA
5V CLK
0V MODE.3
0V MODE.2
0V MODE.1
R2675 R2676 R2677 R2678 R2679 R2680 R2681 R2682 R2683 R2684 R2685 R2686
100 1/10W
E
C3
G13
Q2611, Q2612 : INVERTER
Q2606 : V. SIGNAL DET. for POWER DOWN (For CRT PROTECTION)
R2673 47k 1/4W
R2672 22K 1/4W
2SC1740S-T R/S
Q2612
Q2611
0.6V
D2614 BR3371KJ30A-T
0.01 YF C2650
R2671 22k 1/4W
0.01 YF C2649
R2674 22k 1/4W
R2649 47k
R2650 47k 1/4W
0.1V
Q2606
2SC1740S-T R/S
HSS104-02-TP D2613
R2639 47k 1/4W
47/25 C2643
R2640 47k 1/4W
10/35 NP C2642
R2648 1k 1/4W
23V
0.01 YF C2646
C2645 220/35
150p C2640
R2637 5.6K 1W
R2638 4.7 2W
Q2605 2SD1276A
D2616 HSS104-02-TP
D2617 HSS104-02-TP
D2618 HSS104-02-TP
D2619 HSS104-02-TP
R2652 2.2 2W
Q2605 V.DEF OUT
Q2607 V.DEF OUT
2SA933S-T R/S
R2641 10k 1/4W
Q2610
R2643 180 1/4W
R2666 180 1/4W
Q2609
C2638 YB 1000p
Q2604
-22V
R2636 2.2 2W
Q2607 2SB950A
150p C2648 SL
C2637 YB 1000p
R2642 10k 1/4W
Q2603
Q2602 2SC1740S-T R/S
C2639 SL 150p
R/S 2SC1740S-T
R2646 510 1/4W
C2641 YB 1000p
R2647 1k 1/4W
R2644 470 1/4W
R2645 470 1/4W
-23V
R2651 3W 1.8
R2667 3W 2.2
YF 0.01 C2647
220/35 C2644
GND
R2653 4.7 2W
Q2602, Q2603, Q2609, Q2610 : V. CONTROL
V. DEFLECTION BLOCK
KM200IA13 CN2605
V.AMP
GND
GV
GH
RV
RH
BV
BH
GND
+5V
GND
GND
-5V
0V
5V
-4.9V
E
C4
G14
5VSTB
-5V
C 3/3
CN2606 KM250MA8L
G12
CLK MUTE DATA CE SCL SDA GND +5V
FOR AUTO CONVERGENCE

## C AMP ASSY (1/3) (AWZ6190)

### • CONVER AMP AND V. DEFLECTION BLOCKS


IC2601, IC2602 : CONVERGENCE YOKE DRIVE AMP
IC2601 STK392-110
IC2602 STK392-110
SUB GND
GND
MUTING
PRE -VCC
PRE VCC
Ch1 +IN
Ch1 -IN
Ch1 -VCC
Ch1 OUT
+VCC
Ch2 OUT
Ch2 -VCC
Ch2 -IN
Ch2 +IN
Ch3 +IN
Ch3 -IN
Ch3 -VCC
Ch3 OUT
RV
RH
GH
GV
BH
BV
RH DRIVE
RV DRIVE
GH DRIVE
GV DRIVE
BH DRIVE
BV DRIVE
Q2601 CONV.MUTE
2SA933S-T
2SC1740S-T
Q2608
SVR
SVD
SHR
SHD
VR
VD
CN2603 KM250MA6LB
CN2602 KM250MA6L
CN2601 KM250MA6LR
BLUE
GREEN
RED
G6
G5
G4
CONVERGENCE YOKES
CONVERGENCE AMP BLOCK

Notes

1. RESISTERS
   (RS):METAL OXIDE FILM RESISTER
   (RT):CEMENT RESISTER
   (RN):METAL FILM RESISTER
   (FL):NON FLAMMABLE RESISTER
   THE OTHERS:CARBONFILM RESISTER (1/4 W)
   Figures in pharentheses
   show the rated wattage.
   Those unspecified ones are of 1/4W.
   K:KΩ ,M:MΩ ,Unspecified ones are of Ω
2. CAPACITORS
   (HA):Aluminium electrolytic capasitors
   p:pF,Unspecified ones are of uF
   Capacity/Voltage
   Unspecified ones are of 50V

## 3.9 AMP ASSY (2/3)

Notes

1.RESISTORS

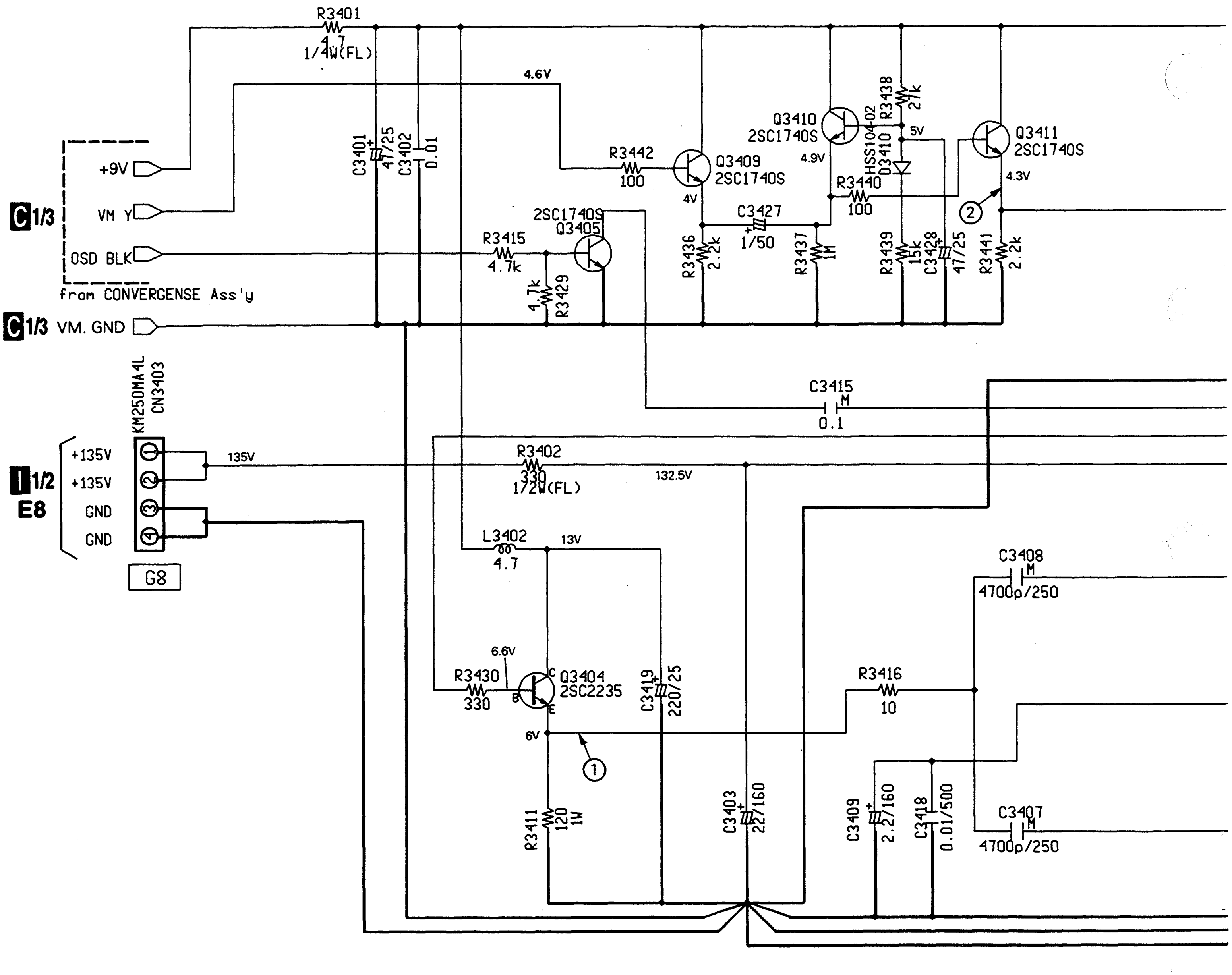
Indicated in ohm,1/4W, ±5%
tolerance unless otherwise noted k;k ohm,M;M ohm

2.CAPASITORS

Indicated in capacity(uF)/Voltage unless
otherwise noted,p;pF.
Indication without voltage is 50V except electrolytic capacitor

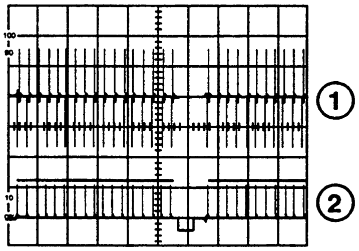
**C** AMP ASSY (2/3) (AWZ6190)

• VELOCITY MODULATION BLOCK

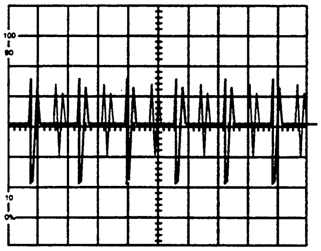

R3401
4.7
1/4W(FL)
4.6V
C3401
47/25
C3402
0.01
+9V
C1/3
VM Y
OSD BLK
from CONVERGENSE Ass'y
C1/3 VM. GND
R3442
100
Q3409
2SC1740S
4V
Q3410
2SC1740S
4.9V
R3438
27k
5V
HSS104-02
D3410
Q3411
2SC1740S
4.3V
R3440
100
②
C3427
1/50
2SC1740S
Q3405
R3415
4.7k
R3429
4.7k
R3436
2.2k
R3437
1M
R3439
15k
C3428
47/25
R3441
2.2k
C3415
M
0.1
KM250MA4L
CN3403
+135V
+135V
GND
GND
I1/2
E8
G8
135V
R3402
330
1/2W(FL)
132.5V
L3402
4.7
13V
C3408
M
4700p/250
6.6V
R3430
330
B
C
E
Q3404
2SC2235
C3419
220/25
R3416
10
6V
①
R3411
120
1W
C3403
22/160
C3409
2.2/160
C3418
0.01/500
C3407
M
4700p/250

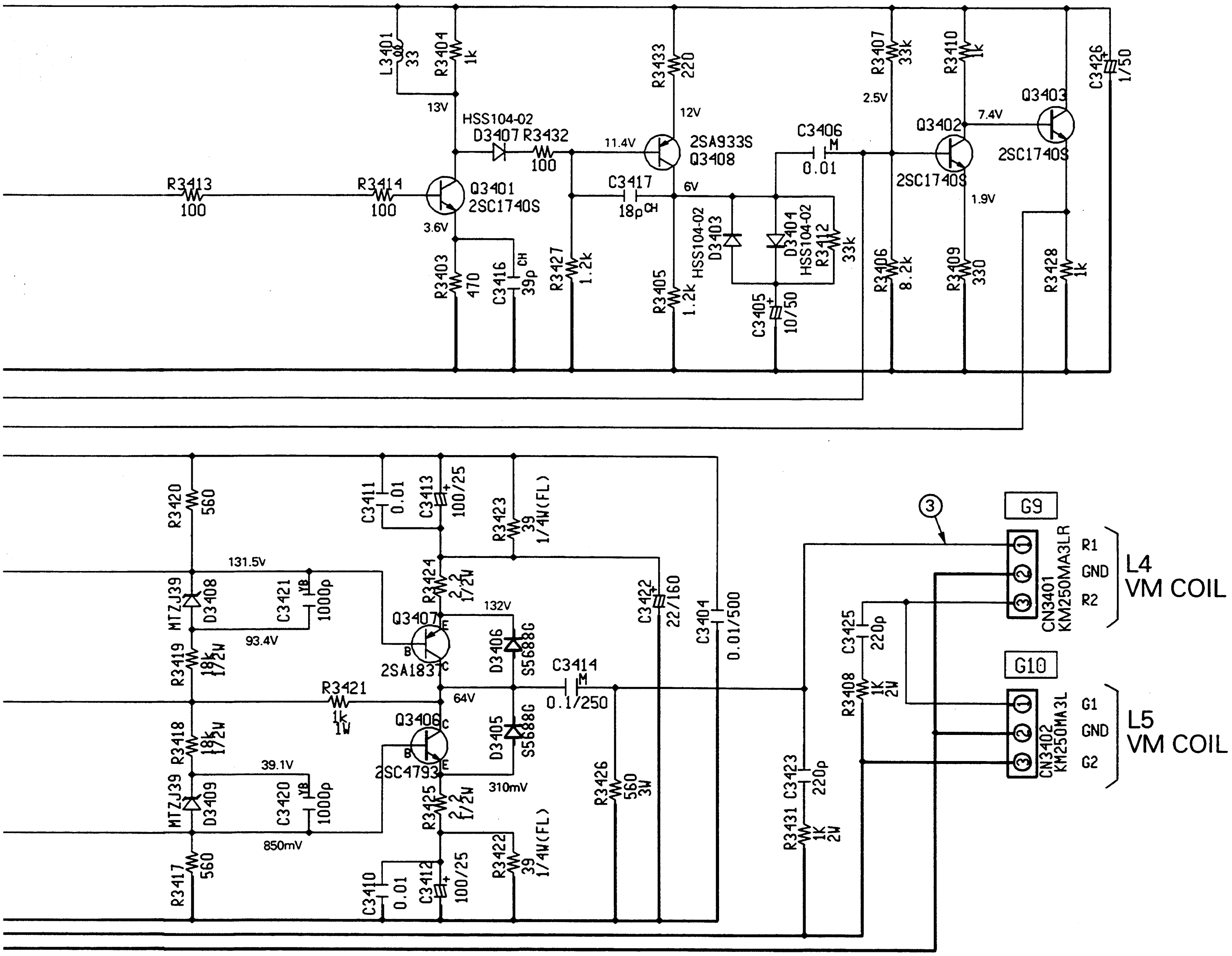
• Signal input : Cross-hatch

① **Upper: Q3404 Emitter**
V : 1V/div, H : 10µsec/div
② **Lower: Q3411 Emitter**
V : 0.5V/div, H : 10µsec/div
•AC range



③ **G9- pin 3**
V : 20V/div, H : 2µsec/div
•AC range

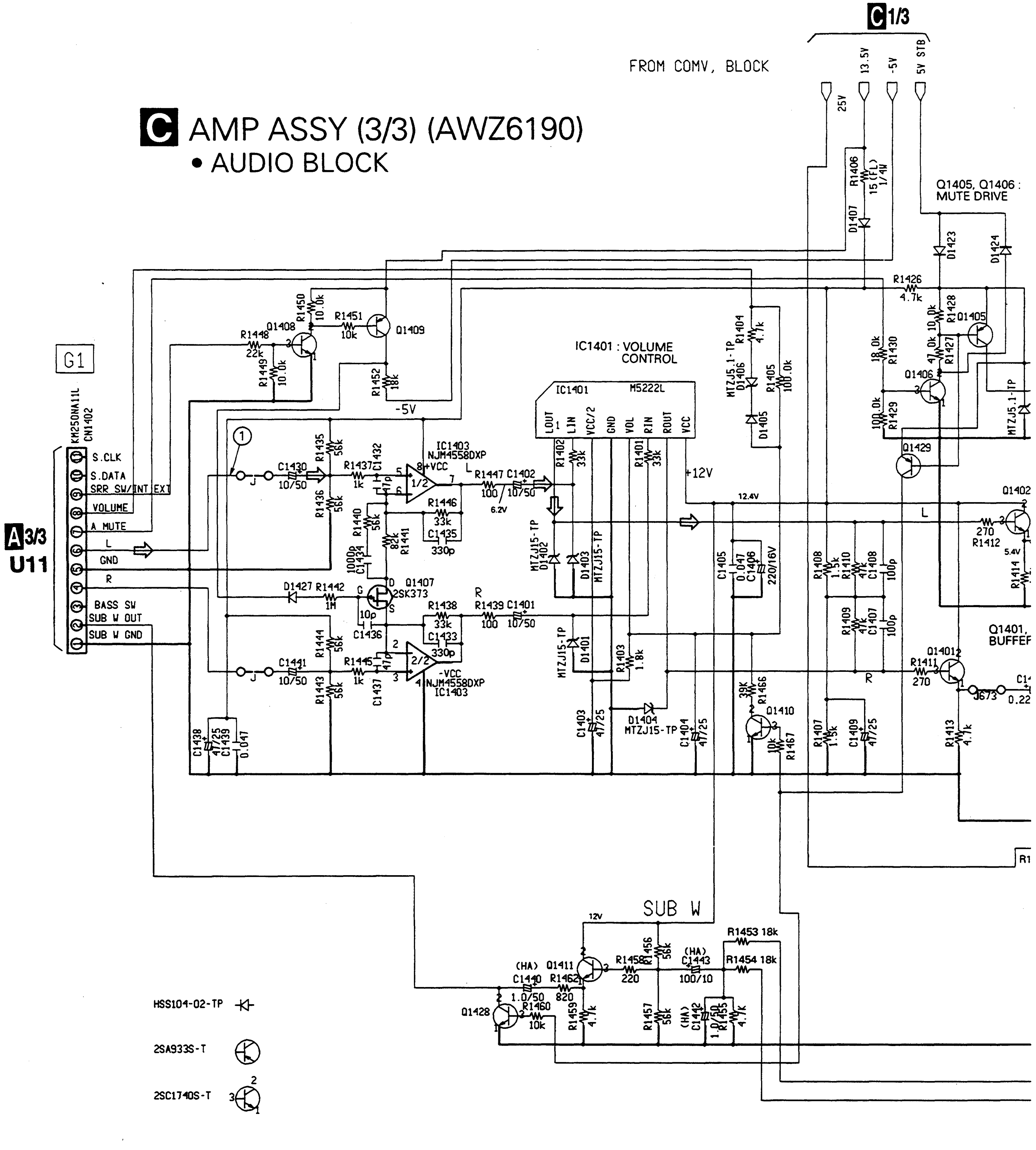




## 3.10 AMP ASSY (3/3)

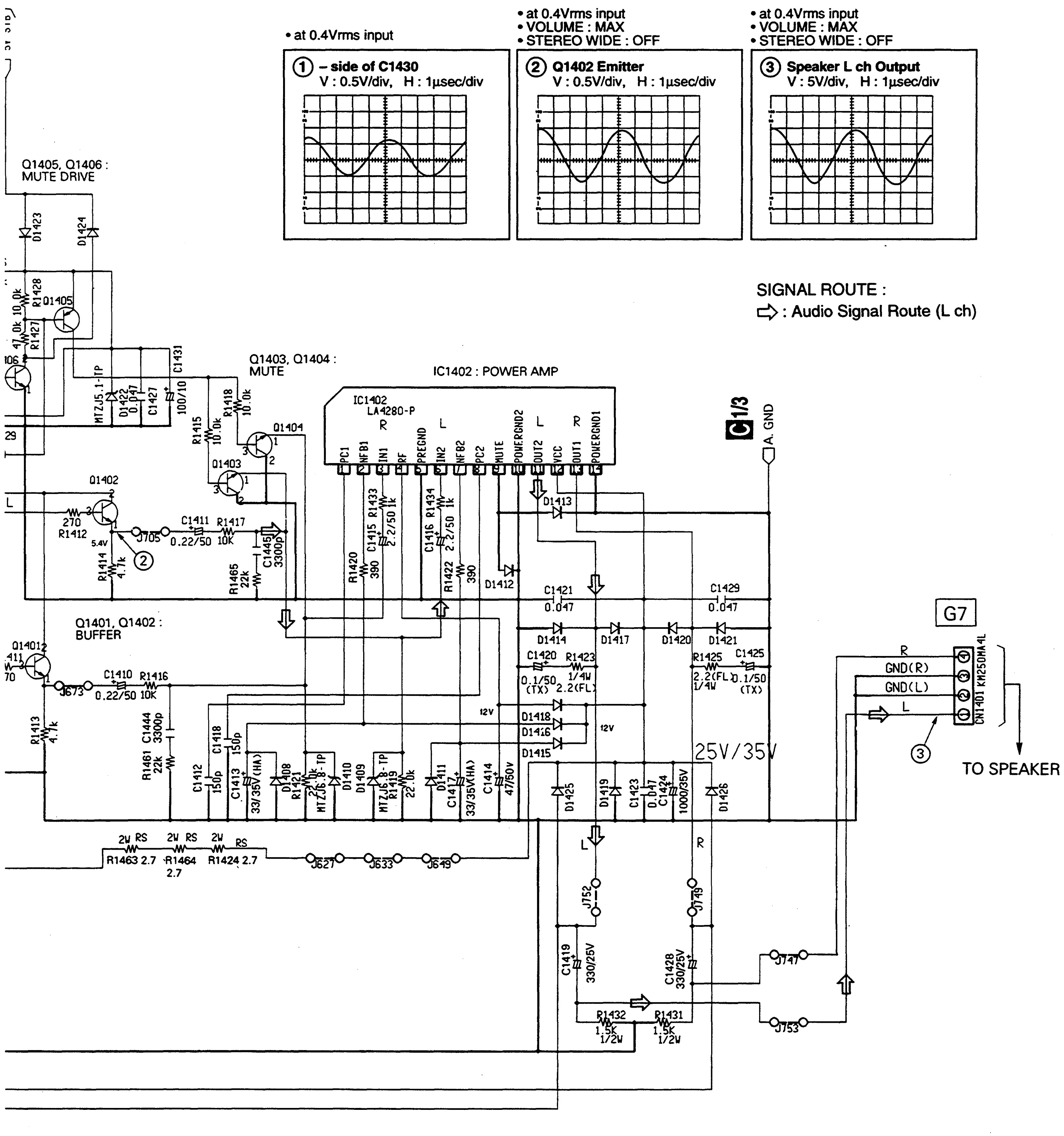
# C AMP ASSY (3/3) (AWZ6190)

## • AUDIO BLOCK


C 1/3
FROM COMV, BLOCK
25V
13.5V
-5V
5V STB
Q1405, Q1406 : MUTE DRIVE
G1
KM250NA11L CN1402
S.CLK
S.DATA
SRR SW/INT EXT
VOLUME
A MUTE
L
GND
R
BASS SW
SUB W OUT
SUB W GND
A 3/3 U11
IC1401 : VOLUME CONTROL
IC1401 M5222L
LOUT
LIN
VCC/2
GND
VOL
RIN
ROUT
VCC
IC1403 NJM4558DXP
+12V
12.4V
-5V
Q1401, BUFFER
SUB W
12V
HSS104-02-TP
2SA933S-T
2SC1740S-T

1. RESISTERS indicated in ,1/2W,1/4W,1/8W,1WFL,2WFL 5%.
tolerance unless otherwise noted K;K Ω,M;M Ω.
(F)+1%,(G)+2%,(K)+10%,(M)+20% tolerance.

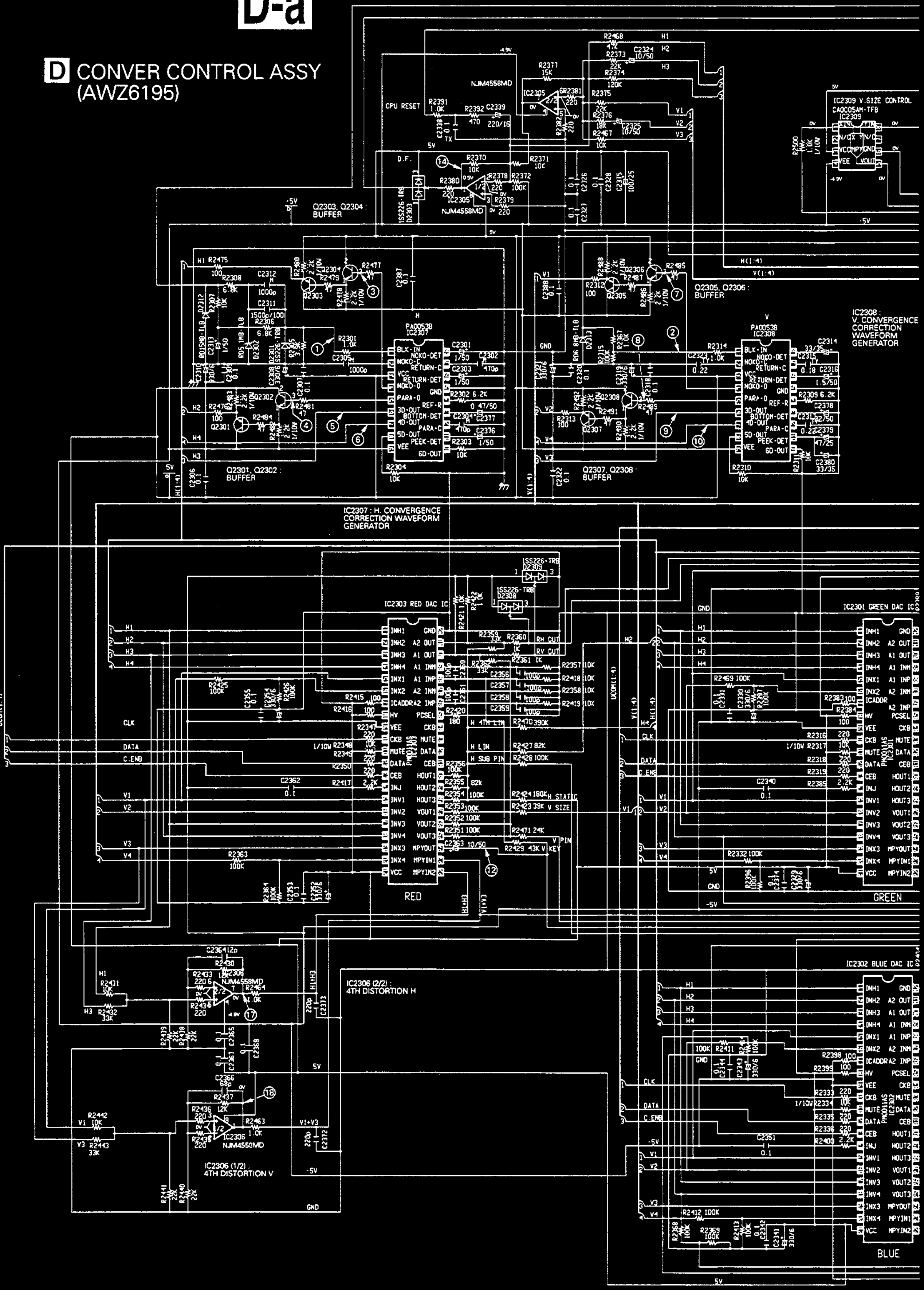
2 CAPACITORS indicated in capasity ( F)/( V) unless otherwise noted pF.
indicated without voltage is 50V except electrolytic capacitor


• at 0.4Vrms input
① – side of C1430
V : 0.5V/div, H : 1μsec/div
• at 0.4Vrms input
• VOLUME : MAX
• STEREO WIDE : OFF
② Q1402 Emitter
V : 0.5V/div, H : 1μsec/div
• at 0.4Vrms input
• VOLUME : MAX
• STEREO WIDE : OFF
③ Speaker L ch Output
V : 5V/div, H : 1μsec/div
SIGNAL ROUTE :
⇨ : Audio Signal Route (L ch)
Q1405, Q1406 :
MUTE DRIVE
D1423
D1424
R1428 10.0k
R1427 47.0k
Q1405
Q1406
MTZJ5.1-TP
D1422
C1427 0.047
C1431 100/10
Q1403, Q1404 :
MUTE
R1418 10.0k
R1415 10.0k
Q1404
Q1403
IC1402 : POWER AMP
IC1402
LA4280-P
PC1
NFB1
IN1
RF
PREGND
IN2
NFB2
PC2
MUTE
POWERGND2
OUT2
VCC
OUT1
POWERGND1
C1/3
A. GND
Q1402
R1412 270
5.4V
R1414 4.7k
J705
C1411 0.22/50
R1417 10K
C1445 3300p
R1465 22k
R1420 390
C1415 2.2/50
R1433 1k
C1416 2.2/50
R1434 1k
R1422 390
D1412
D1413
C1421 0.047
C1429 0.047
G7
Q1401, Q1402 :
BUFFER
Q1401
R1411 470
J673
C1410 0.22/50
R1416 10K
R1413 4.7k
C1444 3300p
R1461 22k
C1412 150p
C1418 150p
C1413 33/35V(HA)
D1408
R1421 22.0k
MTZJ6.8-TP
D1410
D1409
MTZJ6.8-TP
R1419 22.0k
D1411
C1417 33/35V(HA)
C1414 47/50V
D1414
D1417
D1420
D1421
C1420 0.1/50 (TX)
R1423 1/4W 2.2(FL)
R1425 2.2(FL) 1/4W
C1425 0.1/50 (TX)
12V
D1418
D1416
D1415
12V
25V/35V
D1425
D1419
C1423 0.047
C1424 1000/35V
D1426
R
GND(R)
GND(L)
L
CN1401 KM250MA4L
TO SPEAKER
2W RS R1463 2.7
2W RS R1464 2.7
2W RS R1424 2.7
J627
J633
J649
L
R
J752
J749
C1419 330/25V
C1428 330/25V
J747
R1432 1.5K 1/2W
R1431 1.5K 1/2W
J753

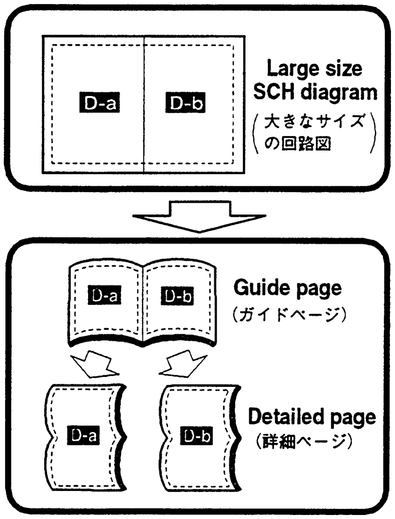
## 3.11 CONVER CONTROL AND CONNECTOR B ASSEMBLIES

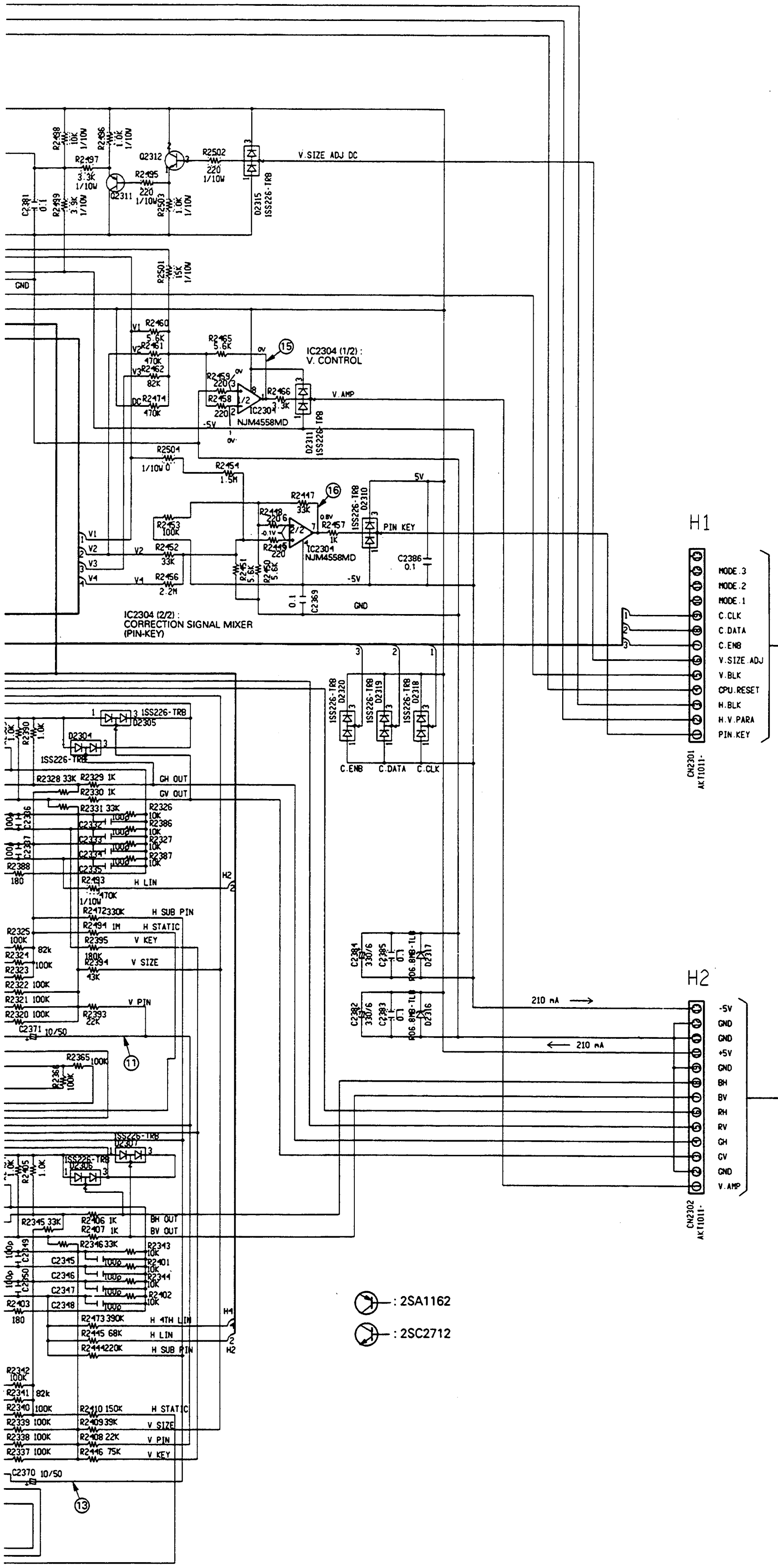
**D-a**

**D** CONVER CONTROL ASSY
(AWZ6195)

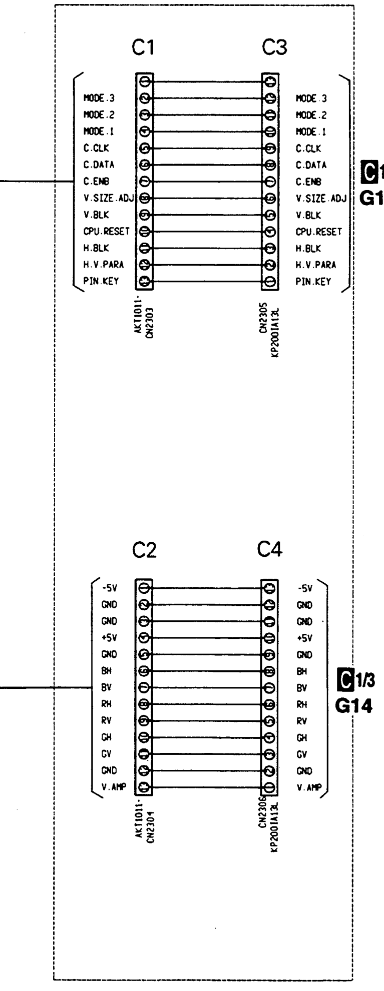

CPU RESET
NJM4558MD
IC2305
D.F.
Q2303, Q2304 : BUFFER
Q2301, Q2302 : BUFFER
Q2305, Q2306 : BUFFER
Q2307, Q2308 : BUFFER
IC2309 V.SIZE CONTROL
CA0005AM-TFB
PA0053B IC2307
PA0053B IC2308
IC2307 : H. CONVERGENCE CORRECTION WAVEFORM GENERATOR
IC2308 : V. CONVERGENCE CORRECTION WAVEFORM GENERATOR
IC2303 RED DAC IC
RED
IC2301 GREEN DAC IC
GREEN
IC2302 BLUE DAC IC
BLUE
PM0011AS
1SS226-TRB D2309
1SS226-TRB D2308
IC2306 (2/2) : 4TH DISTORTION H
IC2306 (1/2) : 4TH DISTORTION V
NJM4558MD
UCOM(1:4)
H(1:4)
V(1:4)
CLK
DATA
C.ENB
H1
H2
H3
H4
V1
V2
V3
V4
RH OUT
RV OUT
H STATIC
V STATIC
V SIZE
H LIN
H SUB PIN
V PIN
V KEY
5V
-5V
GND
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑫
⑭
⑰
⑱

**D-b**

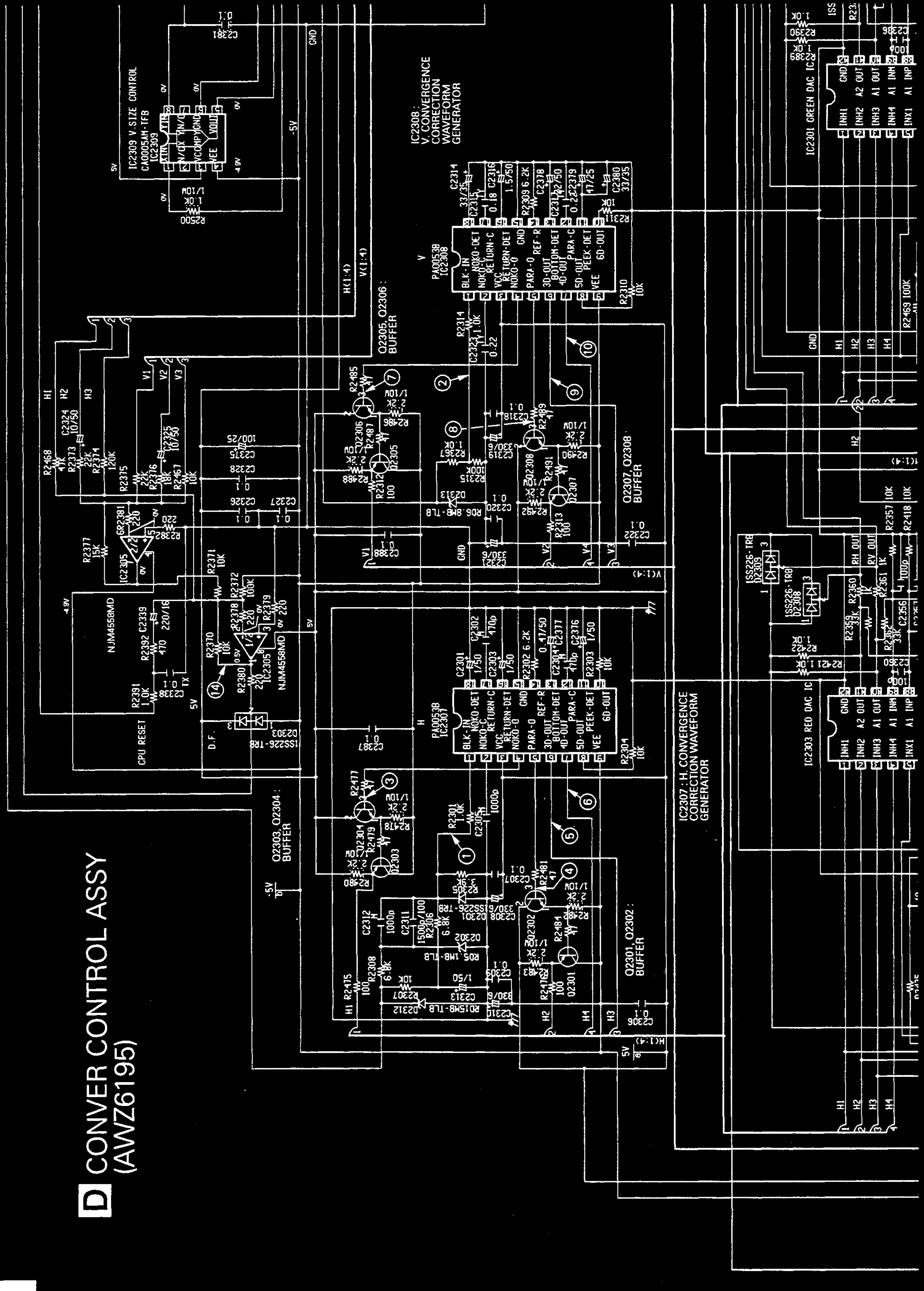

D-a
D-b
Large size SCH diagram
（大きなサイズの回路図）
Guide page
（ガイドページ）
Detailed page
（詳細ページ）


R2498 10K 1/10W
R2496 1.0K 1/10W
R2497 3.3K 1/10W
Q2312
R2502 220 1/10W
Q2311
R2495 220 1/10W
R2503 10K 1/10W
C2381 0.1
R2499 3.9K 1/10W
D2315 1SS226-TRB
V.SIZE ADJ DC
R2501 15K 1/10W
GND
R2460 5.6K
R2461 470K
R2462 82K
R2474 470K
V1
V2
V3
DC
R2465 5.6K
0V
⑮
IC2304 (1/2) : V. CONTROL
R2459 220
R2458 220
R2466 3K
IC2304 NJM4558MD
-5V
V.AMP
D2311 1SS226-TRB
R2504 1/10W 0
R2454 1.5M
5V
R2447 33K
⑯
R2448 220
R2449 220
R2457 1K
D2310 1SS226-TRB
PIN KEY
R2453 100K
R2452 33K
R2456 2.2M
R2451 5.6K
R2450 5.6K
C2386 0.1
C2369 0.1
-5V
GND
V1
V2
V3
V4
IC2304 (2/2) : CORRECTION SIGNAL MIXER (PIN-KEY)
D2320 1SS226-TRB
D2319 1SS226-TRB
D2318 1SS226-TRB
C.ENB
C.DATA
C.CLK
D2305 1SS226-TRB
D2304 1SS226-TRB
R2390 1.0K
R2328 33K
R2329 1K
GH OUT
R2330 1K
GV OUT
R2331 33K
R2326 10K
C2332 100p
R2386 10K
C2333 100p
R2327 10K
C2334 100p
R2387 10K
C2335
C2306 100p
C2307 100p
R2388 180
R2493 470K 1/10W
H LIN
H2
R2472 330K
H SUB PIN
R2494 1M
H STATIC
R2395
V KEY
R2325 100K
R2324 82k
R2323 100K
R2394 43K
V SIZE
R2322 100K
R2321 100K
R2320 100K
V PIN
R2393 22K
C2371 10/50
⑪
R2365 100K
R2366 100K
C2384 330/6
C2385 0.1
D2317 RD6.8MB-1LB
C2382 330/6
C2383 0.1
D2316 RD6.8MB-1LB
210 mA
210 mA
D2307 1SS226-TRB
D2306 1SS226-TRB
R2405 1.0K
R2345 33K
R2406 1K
BH OUT
R2407 1K
BV OUT
R2346 33K
R2343 10K
C2345 100p
R2401 10K
C2346 100p
R2344 10K
C2347 100p
R2402 10K
C2348 100p
C2349 100p
C2350 100p
R2403 180
R2473 390K
H 4TH LIN
H4
R2445 68K
H LIN
R2444 220K
H SUB PIN
H2
R2342 100K
R2341 82k
R2340 100K
R2410 150K
H STATIC
R2339 100K
R2409 39K
V SIZE
R2338 100K
R2408 22K
V PIN
R2337 100K
R2446 75K
V KEY
C2370 10/50
⑬
: 2SA1162
: 2SC2712
H1
MODE.3
MODE.2
MODE.1
C.CLK
C.DATA
C.ENB
V.SIZE ADJ
V.BLK
CPU.RESET
H.BLK
H.V.PARA
PIN.KEY
CN2301 AKT1011-
H2
-5V
GND
GND
+5V
GND
BH
BV
RH
RV
GH
GV
GND
V.AMP
CN2302 AKT1011-

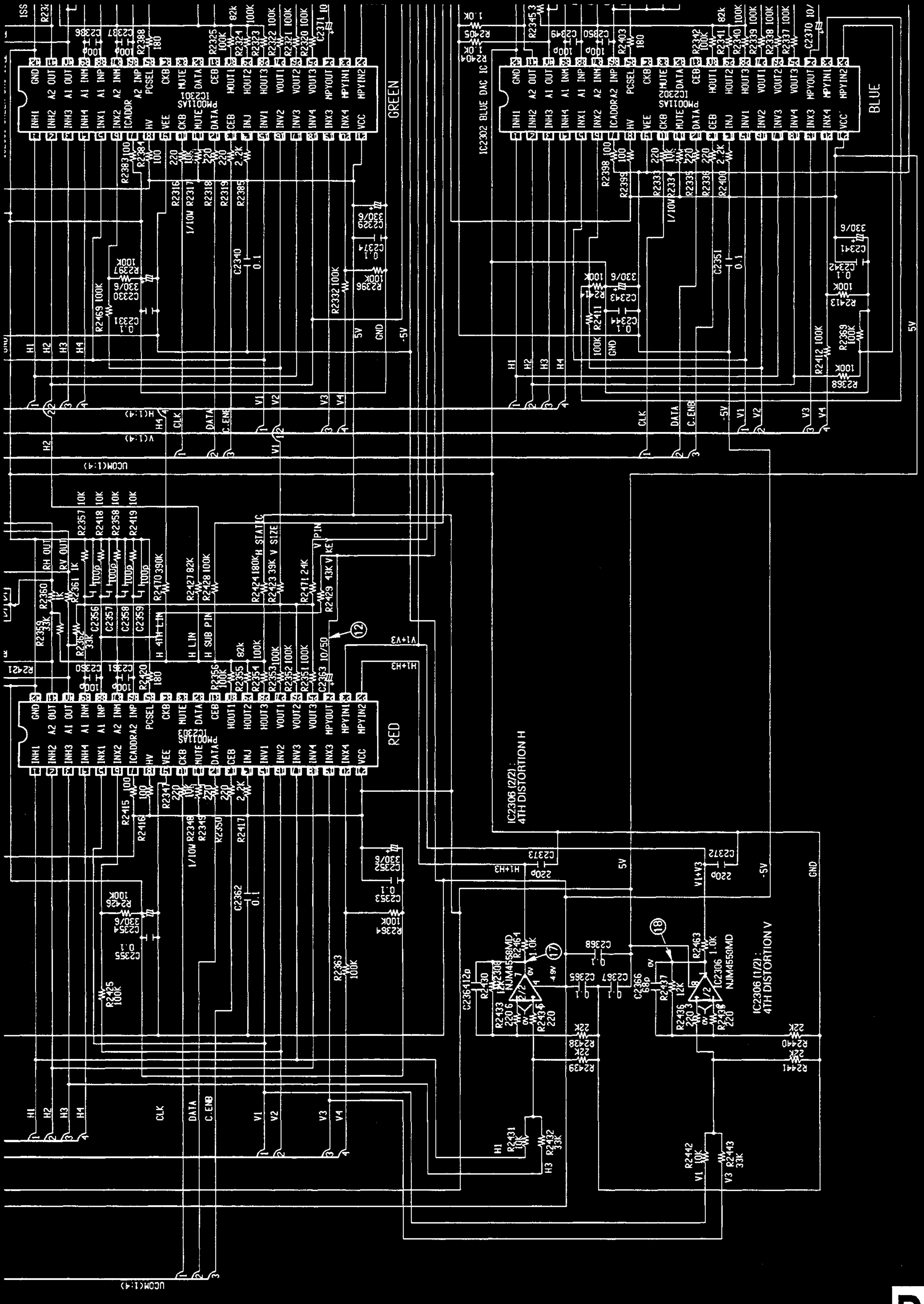
## E CONNECTOR B ASSY (AWZ6196)


C1
C3
MODE.3
MODE.2
MODE.1
C.CLK
C.DATA
C.ENB
V.SIZE.ADJ
V.BLK
CPU.RESET
H.BLK
H.V.PARA
PIN.KEY
AKT1011- CN2303
CN2305 KP200IA12L
C 1/3 G13
C2
C4
-5V
GND
GND
+5V
GND
BH
BV
RH
RV
GH
GV
GND
V.AMP
AKT1011- CN2304
CN2306 KP200IA13L
C 1/3 G14

## D CONVER CONTROL ASSY (AWZ6195)

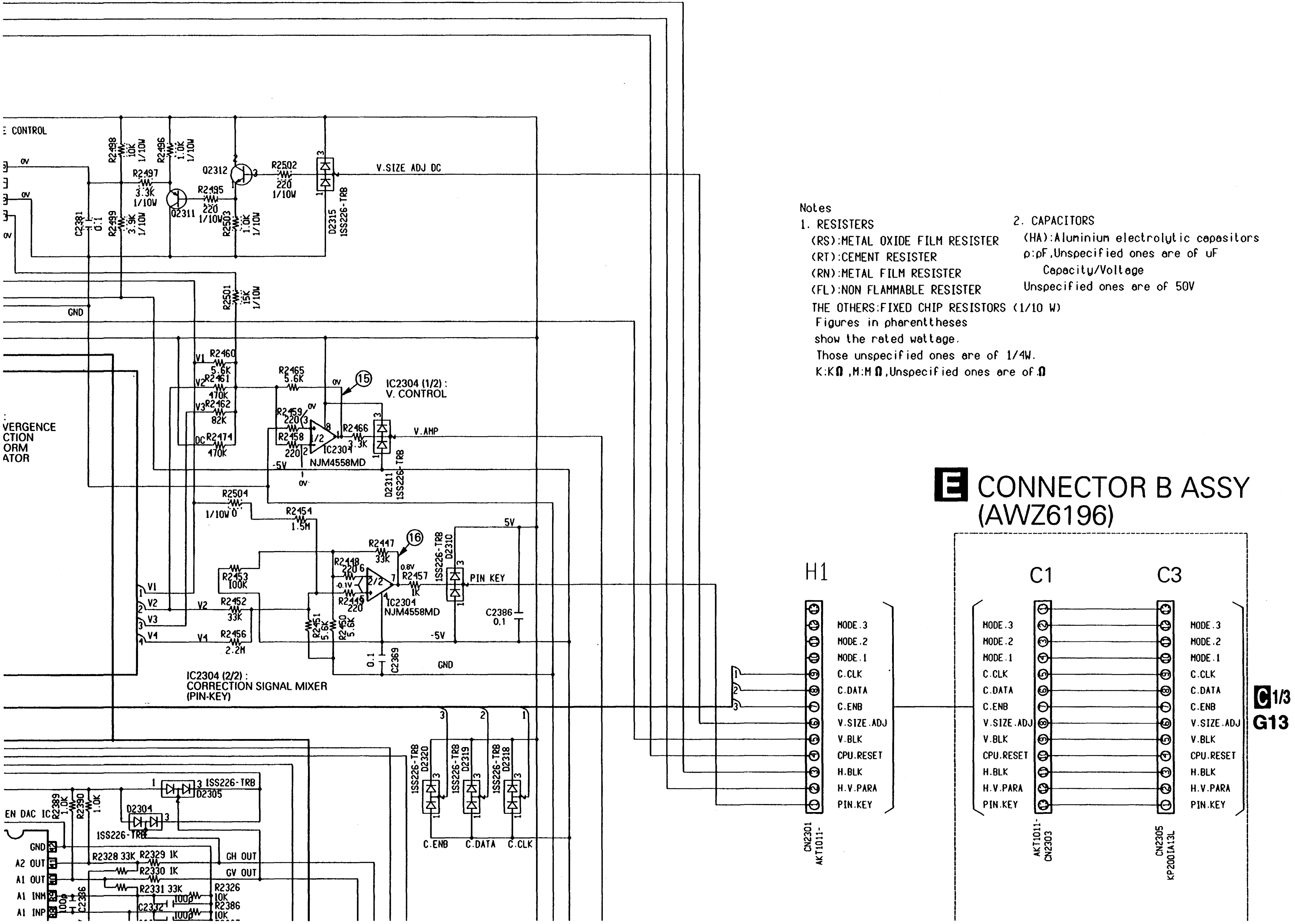

IC2309 V.SIZE CONTROL
CA0005AM-TFB
IC2309
IC2308 : V.CONVERGENCE CORRECTION WAVEFORM GENERATOR
PA0053B IC2308
IC2301 GREEN DAC IC
Q2305, Q2306 : BUFFER
Q2307, Q2308 : BUFFER
NJM4558MD
IC2305
CPU RESET
D.F.
Q2303, Q2304 : BUFFER
PA0053B IC2307
IC2307 : H.CONVERGENCE CORRECTION WAVEFORM GENERATOR
IC2303 RED DAC IC
Q2301, Q2302 : BUFFER
H(1:4)
V(1:4)
H1
H2
H3
H4
V1
V2
V3
V4
GND
5V
-5V
BLK-IN
NOKO-DET
NOKO-C
RETURN-C
VCC
RETURN-DET
NOKO-O
PARA-O
REF-R
3D-OUT
BOTTOM-DET
4D-OUT
PARA-C
5D-OUT
PEEK-DET
VEE
6D-OUT
INH1
INH2
INH3
INH4
INX1
A2 OUT
A1 OUT
A1 INM
A1 INP
RH OUT
RV OUT
1SS226-TRB
D2303
D2308
D2309
RD6.8MB-TLB
RD5.1MB-TLB
RD15MB-TLB

D-a D-b

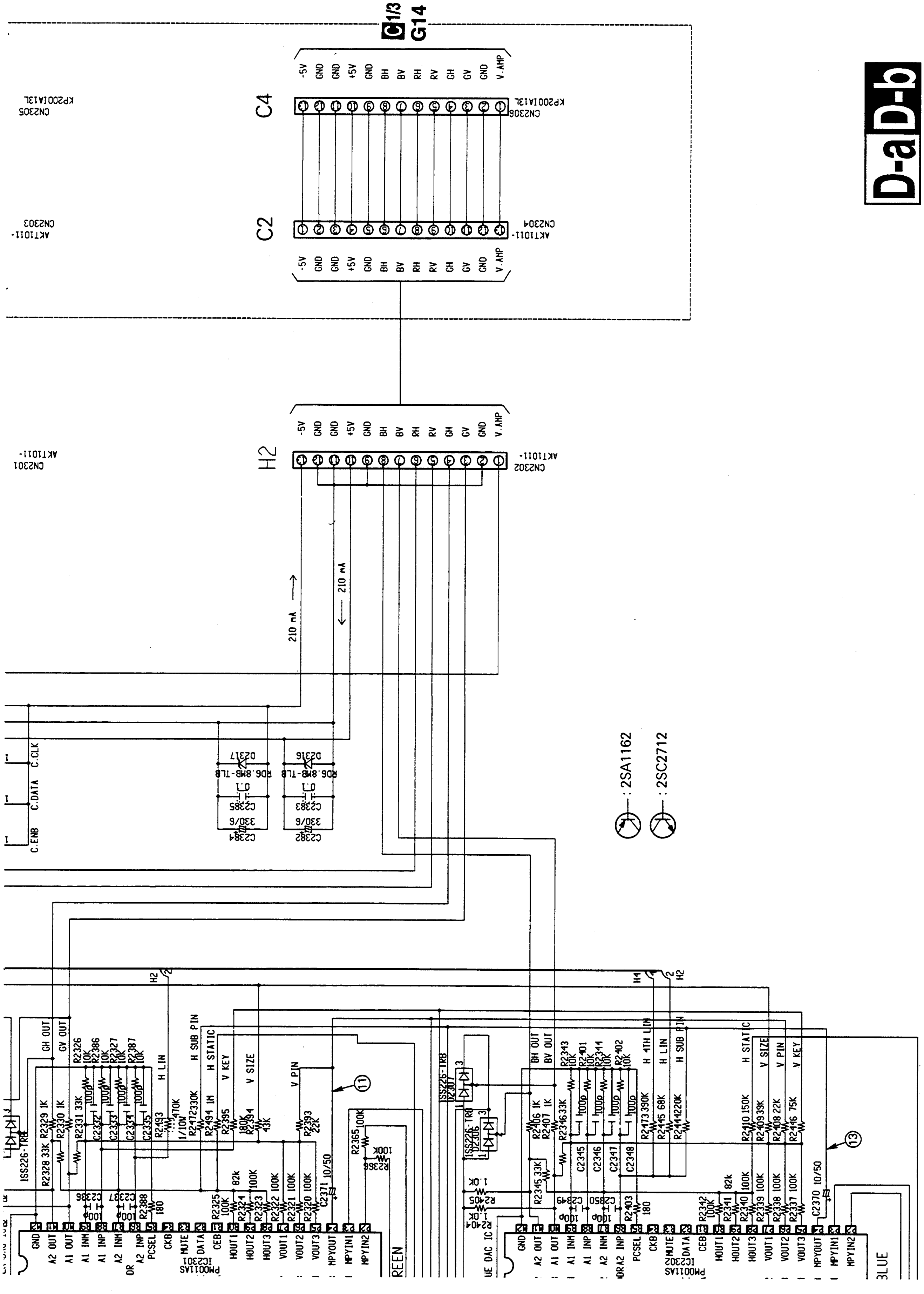

GREEN
IC2301
PM0011AS
BLUE
IC2302
PM0011AS
IC2302 BLUE DAC IC
RED
IC2303
PM0011AS
IC2306 (2/2)
4TH DISTORTION H
IC2306 (1/2)
4TH DISTORTION V
NJM4558MD
UCOM(1:4)
H(1:4)
V(1:4)
H1+H3
V1+V3
5V
GND
-5V
CLK
DATA
C.ENB
H1
H2
H3
H4
V1
V2
V3
V4
RH OUT
RV OUT
H 4TH LIN
H LIN
H SUB PIN
H STATIC
V SIZE
V PIN
V KEY
⑫
⑰
⑱

Notes
1. RESISTERS
(RS):METAL OXIDE FILM RESISTER
(RT):CEMENT RESISTER
(RN):METAL FILM RESISTER
(FL):NON FLAMMABLE RESISTER
THE OTHERS:FIXED CHIP RESISTORS (1/10 W)
Figures in pharenttheses
show the rated wattage.
Those unspecified ones are of 1/4W.
K:KΩ ,M:MΩ ,Unspecified ones are of Ω

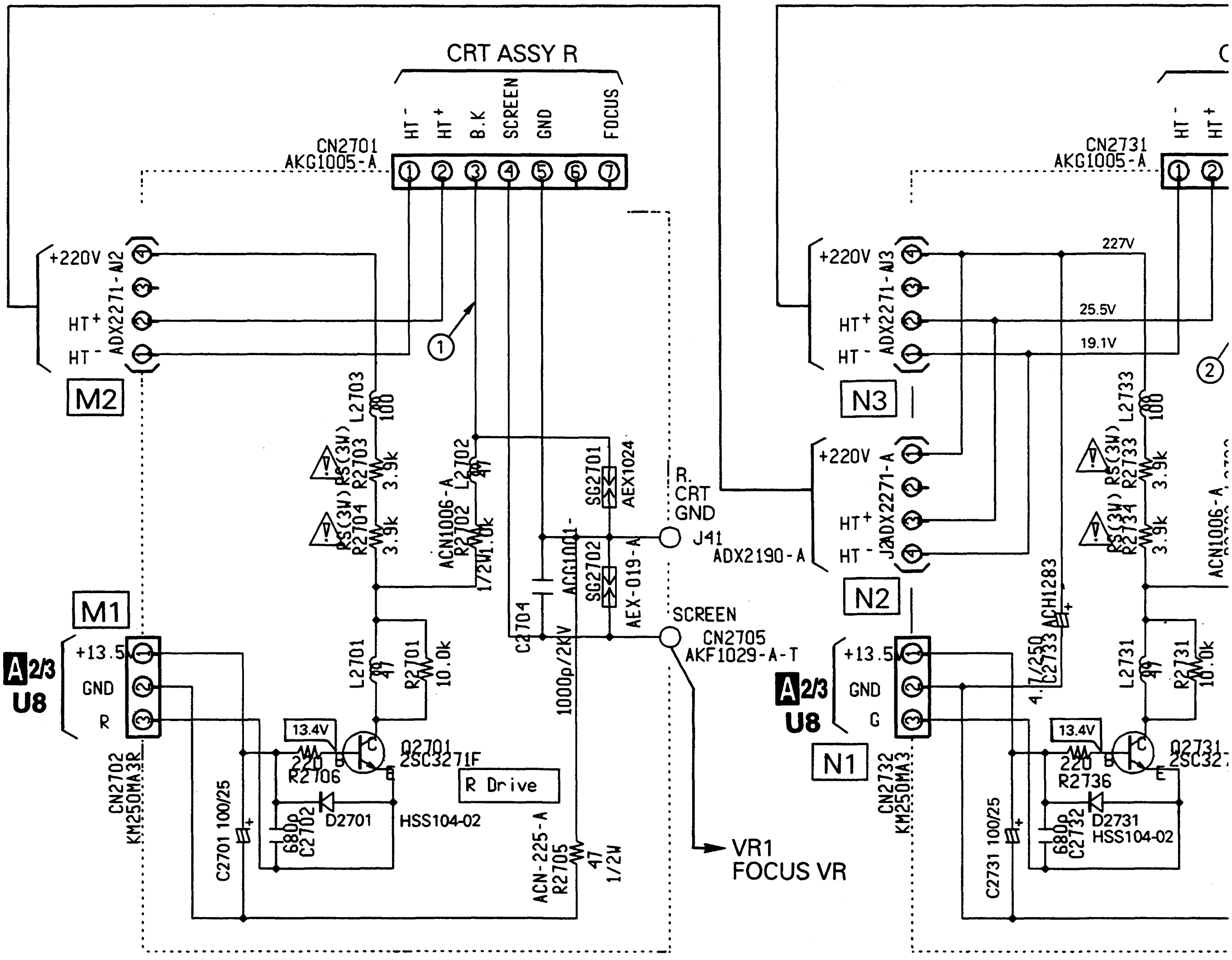
2. CAPACITORS
(HA):Aluminium electrolytic capasitors
p:pF,Unspecified ones are of uF
Capacity/Voltage
Unspecified ones are of 50V


**E** CONNECTOR B ASSY
(AWZ6196)

CONTROL
VERGENCE
CTION
ORM
ATOR
GND
0V
C2381 0.1
R2498 10K 1/10W
R2499 3.9K 1/10W
R2497 3.3K 1/10W
R2496 1.0K 1/10W
Q2311
R2495 220 1/10W
R2503 1.0K 1/10W
Q2312
R2502 220 1/10W
D2315 1SS226-TR8
V.SIZE ADJ DC
R2501 15K 1/10W
V1 R2460 5.6K
V2 R2461 470K
V3 R2462 82K
DC R2474 470K
R2465 5.6K
15
IC2304 (1/2) : V. CONTROL
R2459 220
R2458 220
R2466 3.3K
IC2304 NJM4558MD
-5V
D2311 1SS226-TR8
V.AMP
R2504 1/10W 0
R2454 1.5M
R2447 33K
16
R2448 220
R2449 220
0.8V
-0.1V
R2457 1K
IC2304 NJM4558MD
D2310 1SS226-TR8
PIN KEY
5V
C2386 0.1
R2453 100K
R2452 33K
R2451 5.6K
R2450 5.6K
R2456 2.2M
C2369 0.1
GND
IC2304 (2/2) : CORRECTION SIGNAL MIXER (PIN-KEY)
V1
V2
V3
V4
D2320 1SS226-TR8
D2319 1SS226-TR8
D2318 1SS226-TR8
C.ENB
C.DATA
C.CLK
EN DAC IC
R2389 1.0K
R2390 1.0K
D2304 1SS226-TR8
D2305 1SS226-TR8
GND
A2 OUT
A1 OUT
A1 INM
A1 INP
C2386 100p
R2328 33K
R2329 1K
R2330 1K
R2331 33K
C2332
100p
GH OUT
GV OUT
R2326 10K
R2386 10K
H1
C1
C3
MODE.3
MODE.2
MODE.1
C.CLK
C.DATA
C.ENB
V.SIZE.ADJ
V.BLK
CPU.RESET
H.BLK
H.V.PARA
PIN.KEY
CN2301 AKT1011-
AKT1011- CN2303
CN2305 KP200IA13L
C 1/3 G13


C1/3
G14
C4
C2
H2
CN2305
KP200IA13L
CN2306
KP200IA13L
CN2303
AKT1011-
CN2304
AKT1011-
CN2301
AKT1011-
CN2302
AKT1011-
-5V
GND
GND
+5V
GND
BH
BV
RH
RV
GH
GV
GND
V.AMP
210 mA
210 mA
C.CLK
C.DATA
C.ENB
D2317
D2316
RD6.8MB-TLB
C2385
C2383
0.1
C2384
C2382
330/6
: 2SA1162
: 2SC2712
①
⑪
⑬
H1
H2
GH OUT
GV OUT
BH OUT
BV OUT
H LIN
H SUB PIN
H STATIC
V KEY
V SIZE
V PIN
H 4TH LIN
1SS226-TRB
D2307
D2306
IC2301
PM0011AS
IC2302
PM0011AS
GND
A2 OUT
A1 OUT
A1 INM
A1 INP
A2 INM
A2 INP
PCSEL
CKB
MUTE
DATA
CEB
HOUT1
HOUT2
HOUT3
VOUT1
VOUT2
VOUT3
HPYOUT
HPYIN1
HPYIN2
GREEN
BLUE
R2328 33K
R2329 1K
R2330 1K
R2331 33K
R2326 10K
R2386 10K
R2327 10K
R2387 10K
R2493 470K
R2412 330K
R2494 1M
R2395 180K
R2394 43K
R2393 22K
R2365 100K
R2366 100K
R2325 100K
R2324 82k
R2323 100K
R2322 100K
R2321 100K
R2320 100K
R2388 180
C2371 10/50
C2386 100p
C2387 100p
R2406 1K
R2407 1K
R2346 33K
R2345 33K
R2343 10K
R2401 10K
R2344 10K
R2402 10K
R2417 390K
R2445 68K
R2444 220K
R2410 150K
R2409 39K
R2408 22K
R2446 75K
R2405 1.0K
R2404 1.0K
R2403 180
R2342 100K
R2341 82k
R2340 100K
R2339 100K
R2338 100K
R2337 100K
C2370 10/50
C2345
C2346
C2347
C2348
C2349 100p
C2350 100p
1/10V

## 3.12 R, G AND B CRT AMP ASSEMBLIES


CRT ASSY R
HT⁻
HT⁺
B.K
SCREEN
GND
FOCUS
CN2701
AKG1005-A
+220V
HT⁺
HT⁻
ADX2271-AJ2
M2
①
L2703 100
R2703 RS(3W) 3.9k
R2704 RS(3W) 3.9k
L2702 47
ACN1006-A
R2702 1.0k 1/2W
SG2701 AEX1024
SG2702 AEX-019-A
ACG1001-
C2704 1000p/2KV
R. CRT GND
J41
SCREEN
CN2705
AKF1029-A-T
VR1
FOCUS VR
M1
A 2/3
U8
+13.5V
GND
R
CN2702
KM250MA3R
L2701 47
R2701 10.0k
13.4V
220
R2706
Q2701
2SC3271F
R Drive
D2701
HSS104-02
C2701 100/25
680p C2702
ACN-225-A
R2705 47 1/2W
CN2731
AKG1005-A
HT⁻
HT⁺
227V
25.5V
19.1V
+220V
HT⁺
HT⁻
ADX2271-AJ3
N3
②
+220V
HT⁺
HT⁻
ADX2271-A
ADX2190-A
N2
L2733 100
R2733 RS(3W) 3.9k
R2734 RS(3W) 3.9k
ACN1006-A
ACH1283
C2733 4.7/250
A 2/3
U8
+13.5V
GND
G
N1
CN2732
KM250MA3
L2731 47
R2731 10.0k
13.4V
220
R2736
Q2731
2SC327
D2731
HSS104-02
680p C2732
C2731 100/25

**F** R CRT AMP ASSY (AWZ6191)

**G** G CRT AMP ASS

1.RESISTORS

Indicated in ,1/4W,1/8W, 5% tolerance unless otherwise noted

K:KΩ M:MΩ

2.CAPACITORS

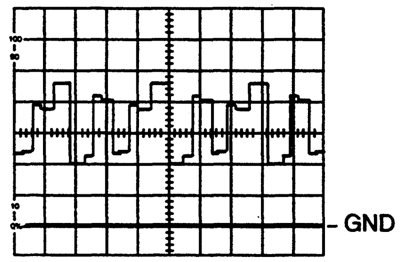
Indicated in capacity (μF)/voltage (V) unless otherwise noted p:pF.

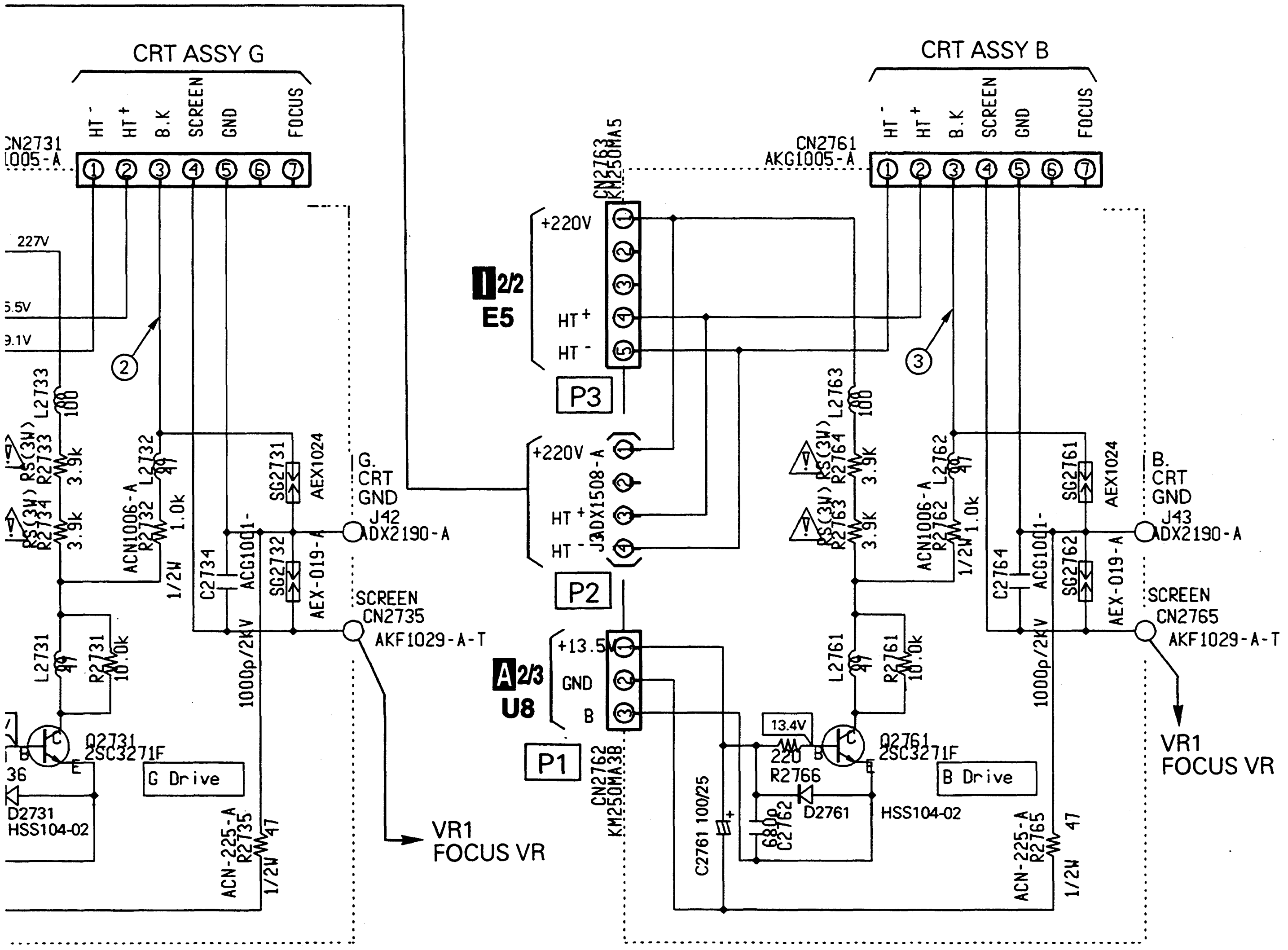
Indication without voltage is 50V except electrolytic capacitor.

* C2703,2733,2763 : ACH-378-0

* C2704,C2734,C2764 : ACG1001-A-F

① **CN2701- pin 3 (R B.K)**
**V : 50V/div, H : 20μsec/div**

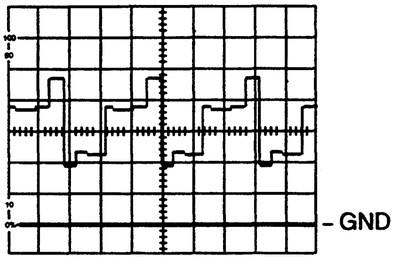



CRT ASSY G
HT -
HT +
B.K
SCREEN
GND
FOCUS
CN2731
1005-A
227V
5.5V
9.1V
②
L2733 100
RS(3W) R2733 3.9k
RS(3W) R2734 3.9k
L2732 47
ACN1006-A R2732 1.0k 1/2W
C2734 1000p/2KV
ACG1001-
SG2731 AEX1024
SG2732 AEX-019-A
G. CRT GND
J42 ADX2190-A
SCREEN CN2735 AKF1029-A-T
VR1 FOCUS VR
L2731 47
R2731 10.0k
Q2731 2SC3271F
B
E
36
D2731 HSS104-02
G Drive
ACN-225-A R2735 47 1/2W
CN2763 KM250MA5
+220V
HT +
HT -
I 2/2 E5
P3
+220V
HT +
HT -
J3 ADX1508-A
P2
+13.5V
GND
B
A 2/3 U8
P1
CN2762 KM250MA3B
CRT ASSY B
HT -
HT +
B.K
SCREEN
GND
FOCUS
CN2761 AKG1005-A
③
L2763 100
RS(3W) R2764 3.9k
RS(3W) R2763 3.9k
ACN1006-A R2762 L2762 47 1/2W 1.0k
C2764 1000p/2KV
ACG1001-
SG2761 AEX1024
SG2762 AEX-019-A
B. CRT GND
J43 ADX2190-A
SCREEN CN2765 AKF1029-A-T
VR1 FOCUS VR
L2761 47
R2761 10.0k
13.4V
220 R2766
Q2761 2SC3271F
B Drive
D2761 HSS104-02
C2761 100/25
C2762 680p
ACN-225-A R2765 47 1/2W

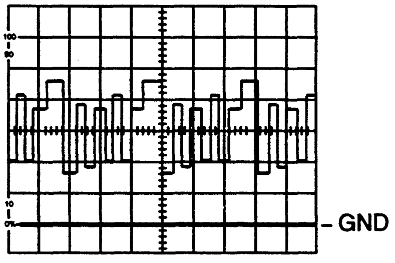
MP ASSY (AWZ6192)

**H** B CRT AMP ASSY (AWZ6193)

② **CN2731- pin 3 (G B.K)**
V : 50V/div, H : 20µsec/div

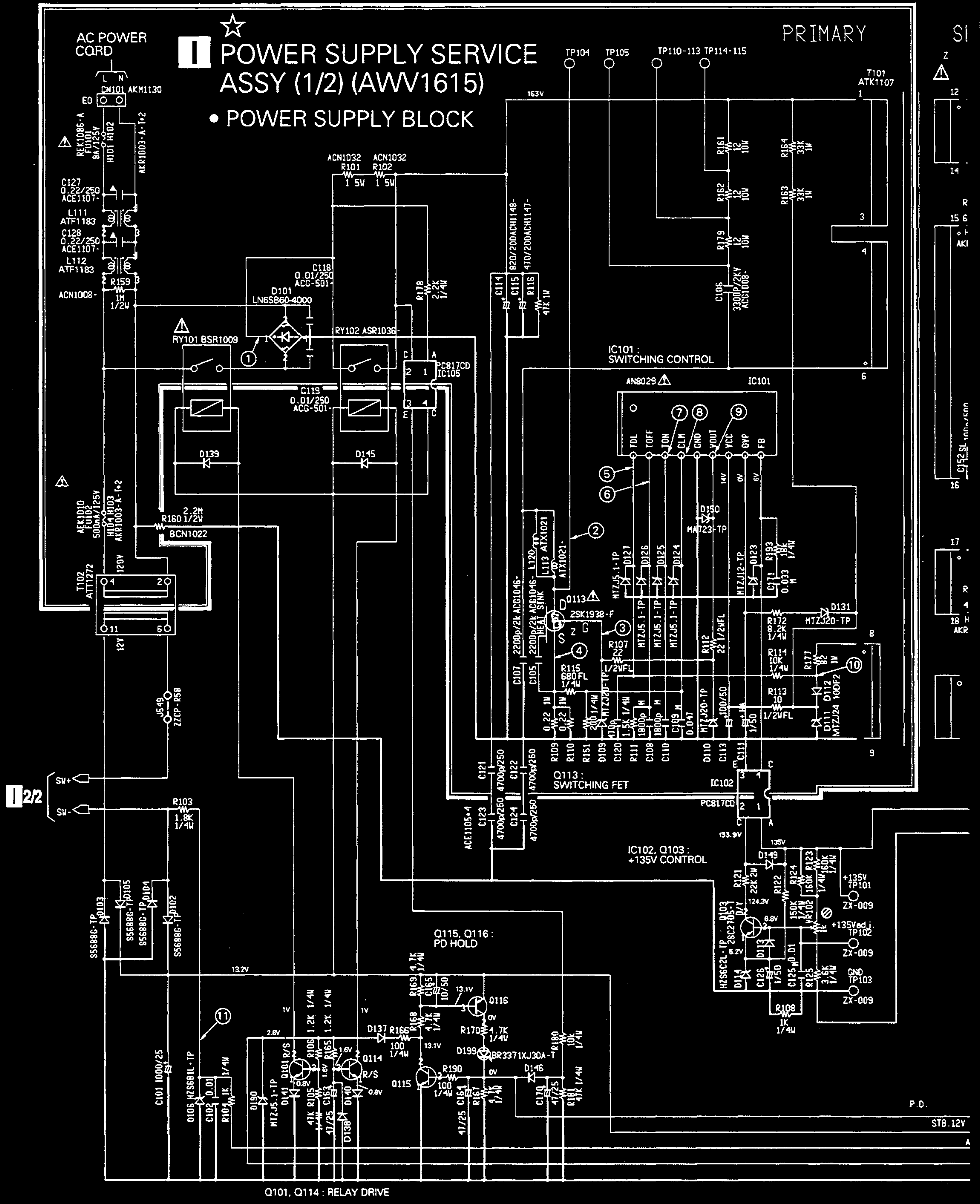


③ **CN2761- pin 3 (B B.K)**
V : 50V/div, H : 20µsec/div



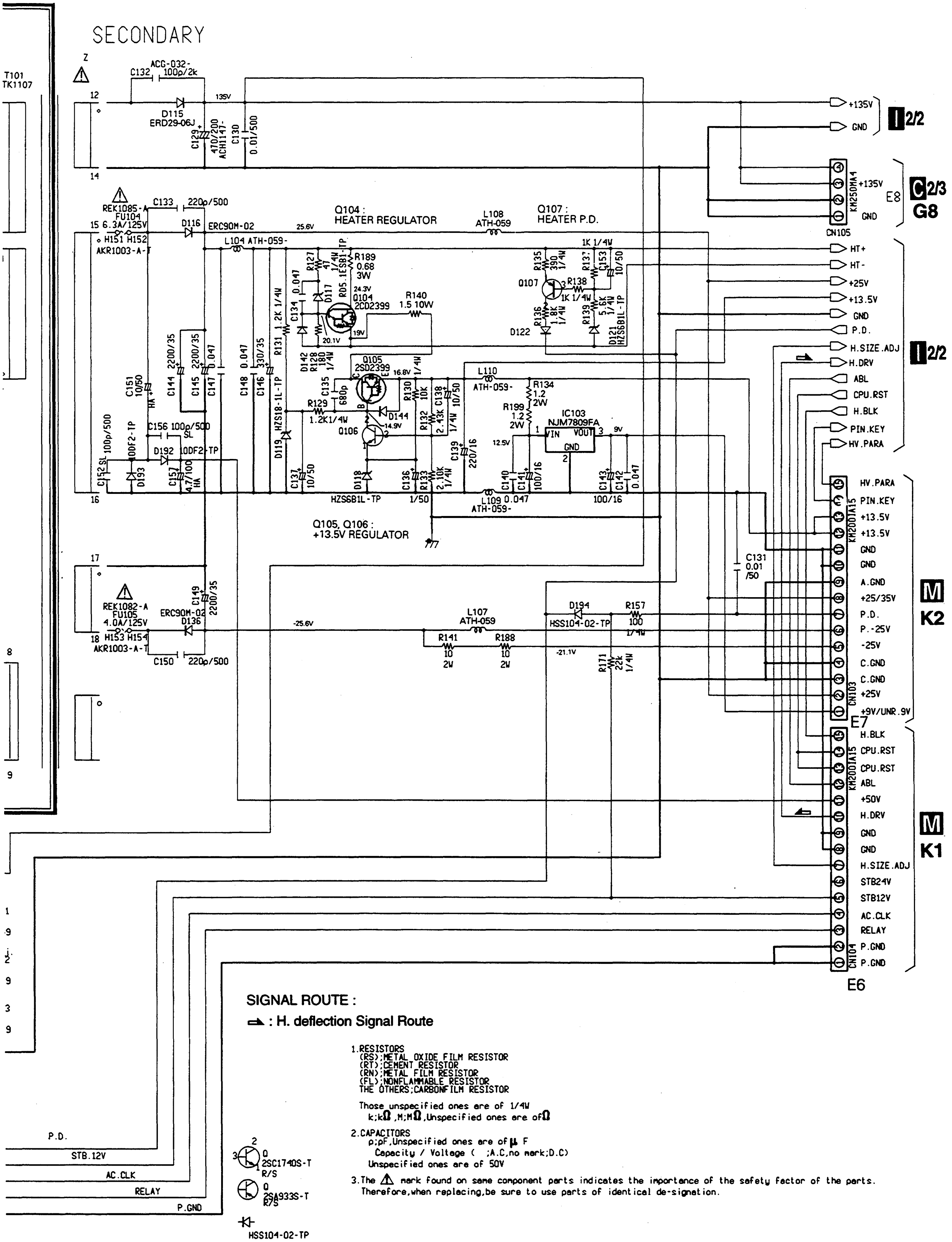
## 3.13 POWER SUPPLY SERVICE ASSY (1/2)

▭ : CHARGED SECTION



AC POWER CORD
I POWER SUPPLY SERVICE ASSY (1/2) (AWV1615)
• POWER SUPPLY BLOCK
PRIMARY
TP104
TP105
TP110-113
TP114-115
T101 ATK1107
CN101 AKM1130
REK1086-A FU101 8A/125V
H101 H102
AKR1003-A-T+2
C127 0.22/250 ACE1107-
L111 ATF1183
C128 0.22/250 ACE1107-
L112 ATF1183
R159 1M 1/2W
ACN1008-
ACN1032 R101 1 5W
ACN1032 R102 1 5W
163V
C118 0.01/250 ACG-501-
D101 LN6SB60-4000
RY101 BSR1009
RY102 ASR1036-
PC817CD IC105
C119 0.01/250 ACG-501-
D139
D145
R178 2.2K 1/4W
C114 820/200ACH1148-
C115 470/200ACH1147-
R116 47K 1W
R161 R162 R179
R164 R163
C106 3300P/2KV ACG1008-
IC101 : SWITCHING CONTROL
AN8029
IC101
TDL TOFF TON CLM GND VOUT VCC OVP FB
AEK1010 FU102 500mA/125V
H103 H104 AKR1003-A-T+2
R160 2.2M 1/2W
BCN1022
T102 ATT1272
120V
12V
J549 ZZCP-R58
D150 MA723-TP
L120 L113 ATX1021
Q113
2SK1938-F
HEAT SINK
R107 22 1/2WFL
R115 680FL 1/4W
R112 22 1/2WFL
R172 8.2K 1/4W
D131 MTZJ20-TP
R114 10K 1/4W
R177 82 1W
R113 10 1/2WFL
D112 10DF2
D111 MTZJ24
Q113 : SWITCHING FET
IC102 PC817CD
I 2/2
SW+
SW-
R103 1.8K 1/4W
IC102, Q103 : +135V CONTROL
133.9V
135V
D149
+135V TP101 ZX-009
+135Vadj. TP102 ZX-009
GND TP103 ZX-009
Q103 2SC2705-Y
HZS6C2L-TP
D113
R108 1K 1/4W
Q115, Q116 : PD HOLD
13.2V
Q116
Q115
Q101 R/S
Q114 R/S
D199 BR3371XJ30A-T
D137
D146
C101 1000/25
D106 HZS6B1L-TP
D103 D105 D104 D102 S5688G-TP
P.D.
STB.12V

Q101, Q114 : RELAY DRIVE


SECONDARY
Z
T101
TK1107
ACG-032-
C132 100p/2k
12
135V
D115
ERD29-06J
C129
470/200
ACH1147-
C130
0.01/500
14
REK1085-A
FU104
15 6.3A/125V
H151 H152
AKR1003-A-T
C133 220p/500
D116
ERC90M-02
25.6V
L104 ATH-059-
Q104 :
HEATER REGULATOR
L108
ATH-059
Q107 :
HEATER P.D.
R127 47 1/4W
RD5.1ESB1-TP
R189 0.68 3W
C134 0.047
D117
24.3V
Q104
2CD2399
R140
1.5 10W
19V
20.1V
R131 1.2K 1/4W
D142 R128 180 1/4W
Q105
2SD2399
16.8V
C135 680p
R129
1.2K1/4W
D144
14.9V
Q106
R130 10K 1/4W
R132 2.43K
C138 10/50
C139 220/16
C151 10/50 HA
C144 2200/35
C145 2200/35
C147 0.047
C148 0.047
C146 330/35
D119 HZS18-1L-TP
C156 100p/500 SL
D192 10DF2-TP
10DF2-TP
C152 SL 100p/500
D193
C157 4.7/100 HA
C137 10/50
D118
HZS6B1L-TP
C136 1/50
R133 2.10K 1/4W
16
Q105, Q106 :
+13.5V REGULATOR
L110
ATH-059-
R134 1.2 2W
R199 1.2 2W
IC103
NJM7809FA
VIN VOUT GND
12.5V
9V
C140 0.047
C141 100/16
L109
ATH-059-
C143 100/16
C142 0.047
R135 390 1/4W
R137 1K 1/4W
C153 10/50
Q107
R138 1K 1/4W
R136 1.8K 1/4W
R139 5.6K 1/4W
D122
D121 HZS6B1L-TP
17
REK1082-A
FU105
4.0A/125V
18 H153 H154
AKR1003-A-T
ERC90M-02
D136
C149 2200/35
C150 220p/500
-25.6V
L107
ATH-059
R141 10 2W
R188 10 2W
D194
HSS104-02-TP
R157 100 1/4W
-21.1V
R171 22k 1/4W
C131 0.01 /50
+135V
GND
I 2/2
KM250MA4
+135V
GND
CN105
E8
C 2/3
G8
HT+
HT-
+25V
+13.5V
GND
P.D.
H.SIZE.ADJ
H.DRV
ABL
CPU.RST
H.BLK
PIN.KEY
HV.PARA
I 2/2
KM200IA15
HV.PARA
PIN.KEY
+13.5V
+13.5V
GND
GND
A.GND
+25/35V
P.D.
P.-25V
-25V
C.GND
C.GND
+25V
+9V/UNR.9V
CN103
E7
M
K2
KM200IA15
H.BLK
CPU.RST
CPU.RST
ABL
+50V
H.DRV
GND
GND
H.SIZE.ADJ
STB24V
STB12V
AC.CLK
RELAY
P.GND
P.GND
CN104
E6
M
K1
P.D.
STB.12V
AC.CLK
RELAY
P.GND
2SC1740S-T
R/S
2SA933S-T
R/S
HSS104-02-TP

**SIGNAL ROUTE :**

**⇨ : H. deflection Signal Route**

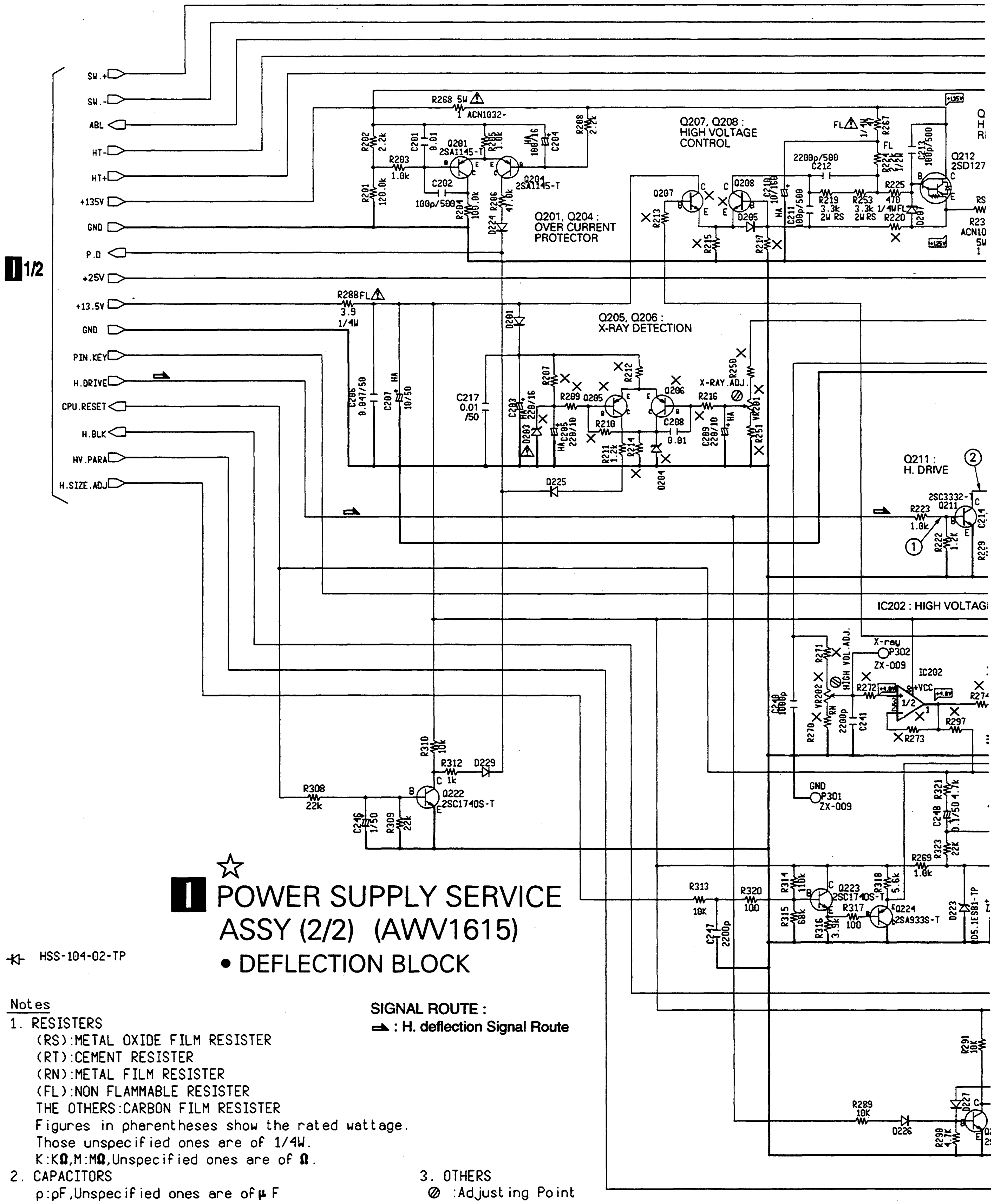
1.RESISTORS
(RS);METAL OXIDE FILM RESISTOR
(RT);CEMENT RESISTOR
(RN);METAL FILM RESISTOR
(FL);NONFLAMMABLE RESISTOR
THE OTHERS;CARBONFILM RESISTOR

Those unspecified ones are of 1/4W
k;kΩ ,M;MΩ ,Unspecified ones are ofΩ

2.CAPACITORS
p;pF,Unspecified ones are of μ F
Capacity / Voltage (  ;A.C,no mark;D.C)
Unspecified ones are of 50V

3.The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts.
Therefore,when replacing,be sure to use parts of identical de-signation.

## 3.14 POWER SUPPLY SERVICE ASSY (2/2)


SW.+
SW.-
ABL
HT-
HT+
+135V
GND
P.D
+25V
+13.5V
GND
PIN.KEY
H.DRIVE
CPU.RESET
H.BLK
HV.PARA
H.SIZE.ADJ
I 1/2
R268 5W ⚠
ACN1032-
R202 2.2k
C201 0.01
Q201 2SA1145-T
R205 1.0k
HA 100/16 C204
R208 2.2k
R203 1.0k
C202 100p/500
Q204 2SA1145-T
R201 120.0k
R204 100.0k
R206 47.0k
D224
Q201, Q204 : OVER CURRENT PROTECTOR
Q207, Q208 : HIGH VOLTAGE CONTROL
Q207
Q208
R213
R215
D205
R217
C210 10/160
C211 100p/500
2200p/500 C212
R219 3.3k 2W RS
R253 3.3k 2W RS
R225 470 1/4W FL
R220
R224 2.2k 1/2W
R267 1/4W FL ⚠
C213 100p/500
D207
Q212 2SD127
R23 ACN10 5W
+125V
R288 FL ⚠ 3.9 1/4W
D201
C206 0.047/50
C207 HA 10/50
C217 0.01 /50
Q205, Q206 : X-RAY DETECTION
R207
R209 Q205
R212
Q206
R216
X-RAY ADJ.
R250
VR201
R251
C203 HA 220/16
D203
C205 HA 220/10
R210
R211 1.2k
R214
C208 0.01
C209 220/10
D204
D225
Q211 : H. DRIVE
2SC3332-T Q211
R223 1.8k
R222 1.2k
C214
R229
IC202 : HIGH VOLTAGE
X-ray P302 ZX-009
R271
HIGH VOL.ADJ.
VR202
R272
IC202
+VCC
1/2
R27
R297
R273
C240 100p
R270
2200p C241
GND P301 ZX-009
R310 10k
R312 1k
D229
R308 22k
Q222 2SC1740S-T
C246 1/50
R309 22k
R321 4.7k
C248 0.1/50
R323 22k
R269 1.8k
R313 10K
C247 2200p
R320 100
R314 10k
R315 68k
R316 3.9k
Q223 2SC1740S-T
R318 5.6k
R317 100
Q224 2SA933S-T
D223 1SS81-TP
R291 10K
R289 10K
D226
D227
R290 4.7K
①
②

☆

## I POWER SUPPLY SERVICE ASSY (2/2) (AWV1615)

## • DEFLECTION BLOCK

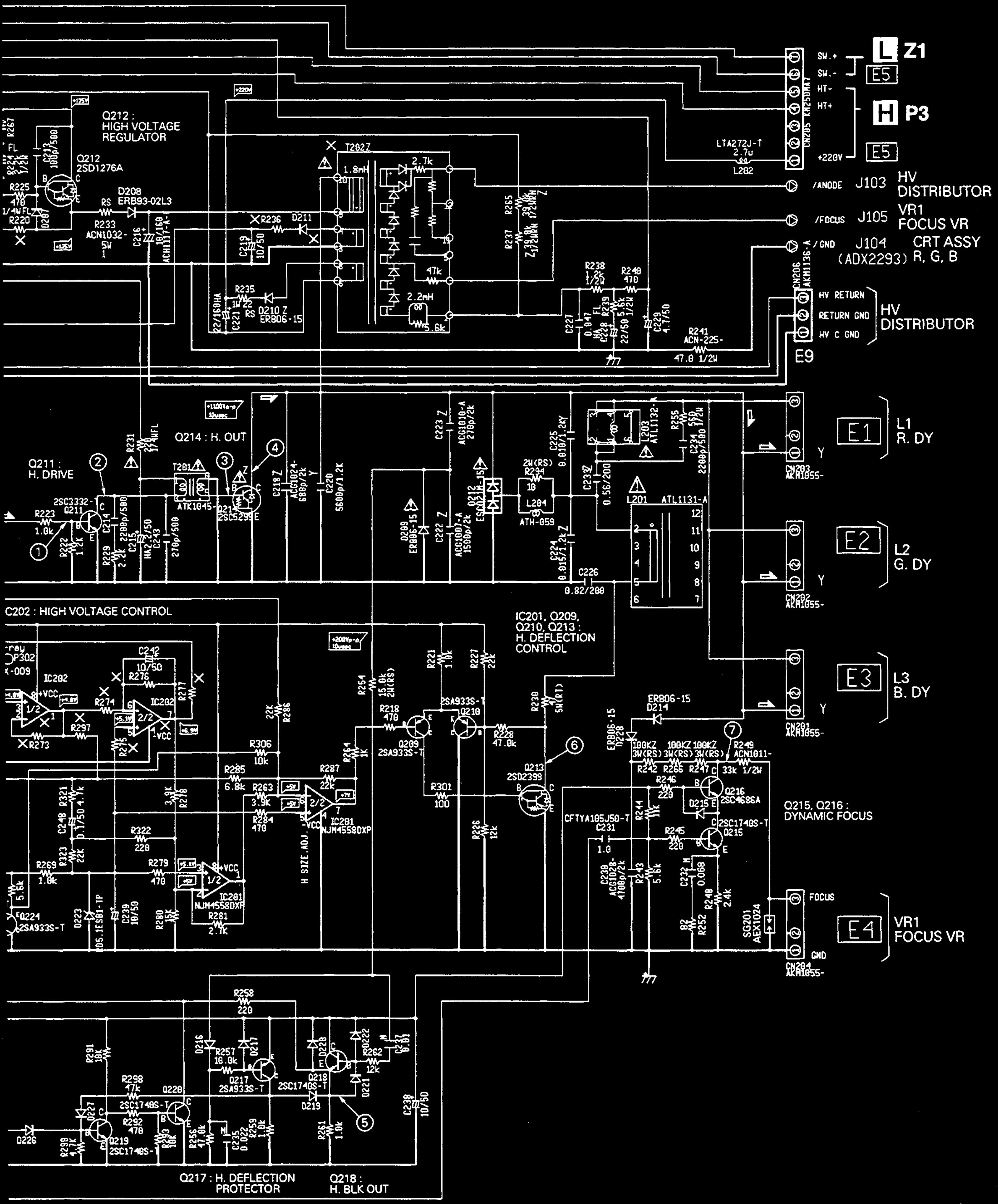
-⊬- HSS-104-02-TP

Notes

1. RESISTERS
   (RS):METAL OXIDE FILM RESISTER
   (RT):CEMENT RESISTER
   (RN):METAL FILM RESISTER
   (FL):NON FLAMMABLE RESISTER
   THE OTHERS:CARBON FILM RESISTER
   Figures in pharentheses show the rated wattage.
   Those unspecified ones are of 1/4W.
   K:KΩ,M:MΩ,Unspecified ones are of Ω.
2. CAPACITORS
   p:pF,Unspecified ones are of μF
   Capacity/Voltage
   Unspecified ones are of 50V

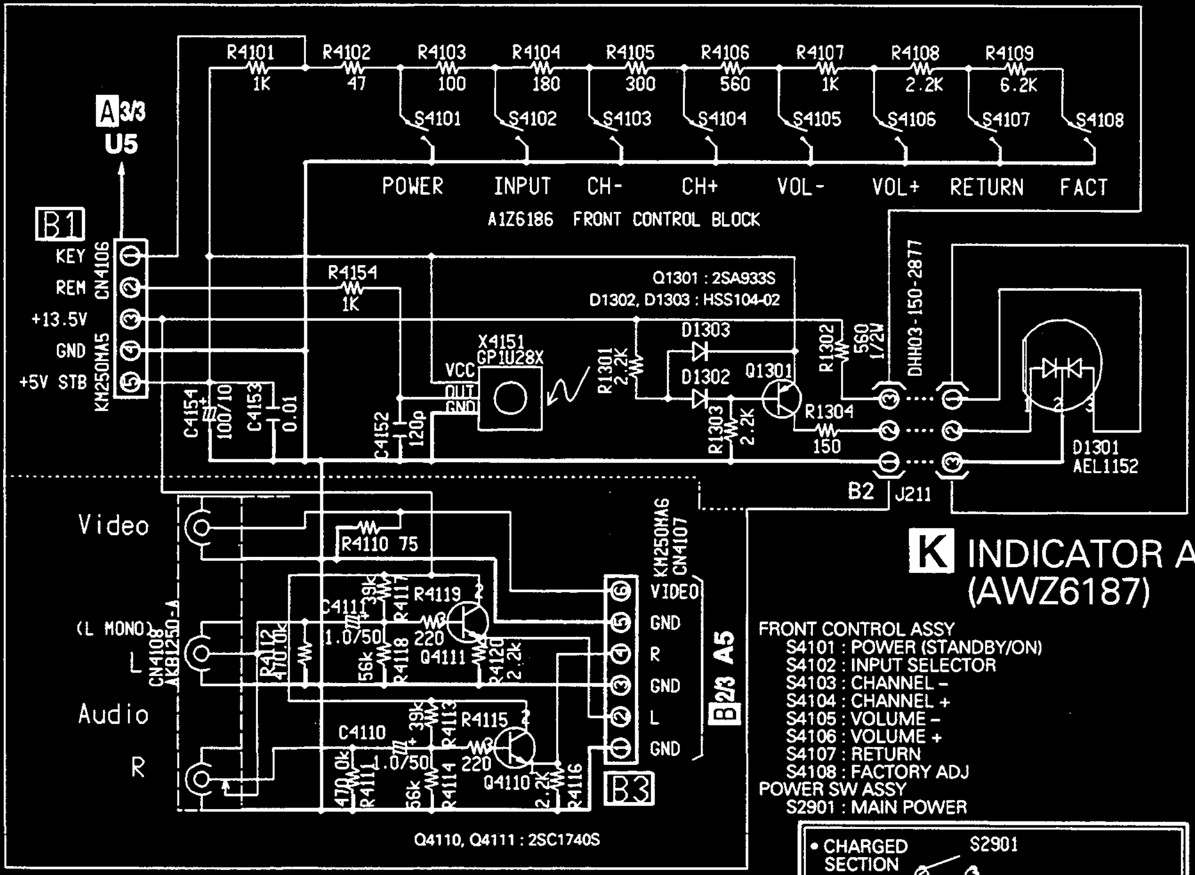
SIGNAL ROUTE :
➡ : H. deflection Signal Route

3. OTHERS
   ⊘ :Adjusting Point
   The ⚠ mark found on same component parts indicates the importance of the safety factor of the part. Therefore,when replacing,be sure to use parts of identical designation.


Q212 : HIGH VOLTAGE REGULATOR
Q212 2SD1276A
D208 ERB93-02L3
R233 ACN1032-
T202Z
1.8mH
2.7k
47k
2.2mH
5.6k
R236
D211
R235
D210 Z ERB06-15
R265
R237
R238
R240
R241 ACN-225-
47.0 1/2W
LTA272J-T 2.7u
L202
CN205 KR25DNA7
SW.+
SW.-
HT-
HT+
+220V
L Z1
E5
H P3
E5
/ANODE J103 HV DISTRIBUTOR
/FOCUS J105 VR1 FOCUS VR
/GND J104 CRT ASSY (ADX2293) R, G, B
CN206 AKM1136-A
HV RETURN
RETURN GND
HV C GND
HV DISTRIBUTOR
E9
Q214 : H. OUT
Q211 : H. DRIVE
2SC3332-
Q211
R223 1.0k
T201
ATK1045-
Q214 2SC5299E
C220 5600p/1.2K
D209 ERB06-15
L204 ATH-059
L203 ATL1132-
L201 ATL1131-A
C226 0.82/200
E1 L1 R. DY
E2 L2 G. DY
E3 L3 B. DY
CN203 AKM1055-
CN202 AKM1055-
CN201 AKM1055-
IC202 : HIGH VOLTAGE CONTROL
IC202
IC201, Q209, Q210, Q213 : H. DEFLECTION CONTROL
Q209 2SA933S-T
Q210 2SA933S-T
Q213 2SD2399
IC201 NJM4558DXP
H SIZE ADJ.
ERB06-15 D214
D228 ERB06-15
R249 ACN1011-
Q216 2SC4686A
Q215 2SC1740S-T
Q215, Q216 : DYNAMIC FOCUS
SG201 AEX1024
FOCUS
GND
CN204 AKM1055-
E4 VR1 FOCUS VR
Q224 2SA933S-T
R258 220
Q217 2SA933S-T
Q218 2SC1740S-T
Q220 2SC1740S-T
Q219 2SC1740S-T
D226
Q217 : H. DEFLECTION PROTECTOR
Q218 : H. BLK OUT
①
②
③
④
⑤
⑥
⑦

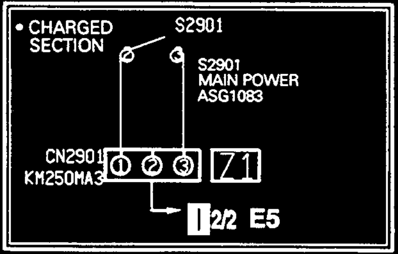
## 3.15 FRONT CONTROL, INDICATOR, POWER SW AND CONNECTOR A ASSEMBLIES

### J FRONT CONTROL ASSY (AWZ6186)


R4101 1K
R4102 47
R4103 100
R4104 180
R4105 300
R4106 560
R4107 1K
R4108 2.2K
R4109 6.2K
S4101
S4102
S4103
S4104
S4105
S4106
S4107
S4108
POWER
INPUT
CH-
CH+
VOL-
VOL+
RETURN
FACT
A1Z6186 FRONT CONTROL BLOCK
A 3/3 U5
B1
KEY
REM
+13.5V
GND
+5V STB
CN4106
KM250MA5
R4154 1K
Q1301 : 2SA933S
D1302, D1303 : HSS104-02
X4151 GP1U28X
VCC
OUT
GND
R1301 2.2K
D1303
D1302
Q1301
R1302 560 1/2W
R1303 2.2K
R1304 150
DHH03-150-2877
C4154 100/10
C4153 0.01
C4152 120p
B2
J211
D1301 AEL1152
Video
(L MONO)
L
Audio
R
CN4108 AKB1250-A
R4110 75
C4111 1.0/50
R4117 39k
R4119 220
Q4111
R4118 56k
R4120 2.2k
R4112 470.0k
C4110 1.0/50
R4113 39k
R4115 220
Q4110
R4111 470.0k
R4114 56k
R4116 2.2k
KM250MA6 CN4107
VIDEO
GND
R
GND
L
GND
B 2/3 A5
B3
Q4110, Q4111 : 2SC1740S

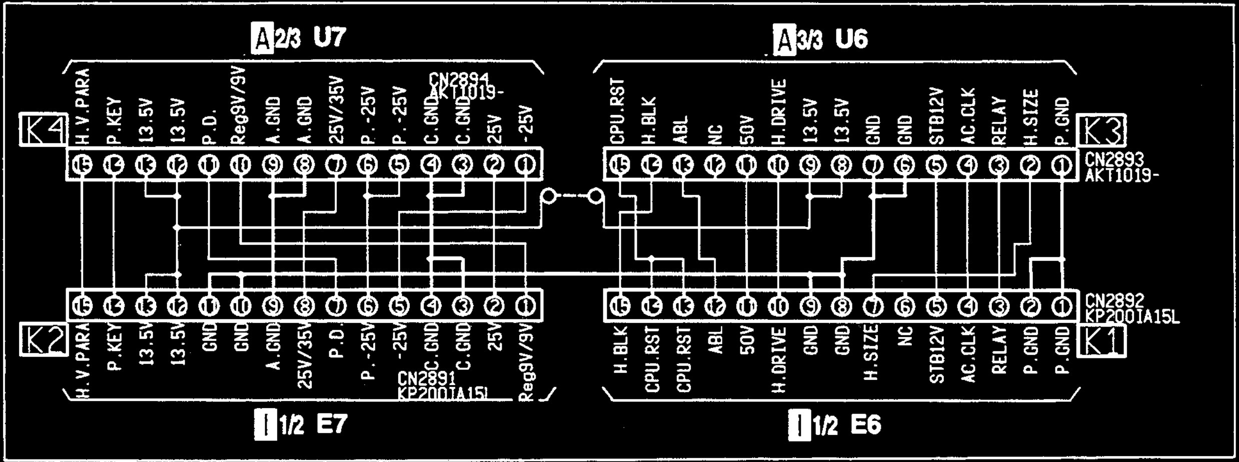
### K INDICATOR ASSY (AWZ6187)

FRONT CONTROL ASSY
S4101 : POWER (STANDBY/ON)
S4102 : INPUT SELECTOR
S4103 : CHANNEL –
S4104 : CHANNEL +
S4105 : VOLUME –
S4106 : VOLUME +
S4107 : RETURN
S4108 : FACTORY ADJ
POWER SW ASSY
S2901 : MAIN POWER


• CHARGED SECTION
S2901
S2901 MAIN POWER ASG1083
CN2901 KM250MA3
Z1
I 2/2 E5

### L POWER SW ASSY (AWZ6188)

### M CONNECTOR A ASSY (AWZ6189)

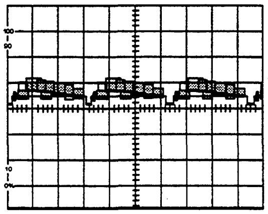

A 2/3 U7
A 3/3 U6
K4
H.V.PARA
P.KEY
13.5V
13.5V
P.D.
Reg9V/9V
A.GND
A.GND
25V/35V
P.-25V
P.-25V
C.GND
C.GND
25V
-25V
CN2894 AKT1019-
CPU.RST
H.BLK
ABL
NC
50V
H.DRIVE
13.5V
13.5V
GND
GND
STB12V
AC.CLK
RELAY
H.SIZE
P.GND
K3
CN2893 AKT1019-
K2
H.V.PARA
P.KEY
13.5V
13.5V
GND
GND
A.GND
25V/35V
P.D.
P.-25V
-25V
C.GND
C.GND
25V
Reg9V/9V
CN2891 KP200IA15L
H.BLK
CPU.RST
CPU.RST
ABL
50V
H.DRIVE
GND
GND
H.SIZE
NC
STB12V
AC.CLK
RELAY
P.GND
P.GND
CN2892 KP200IA15L
K1
I 1/2 E7
I 1/2 E6

## 3.16 WAVEFORMS AND VOLTAGES

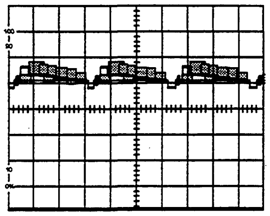
### A 1/3 TUNER • VIDEO ASSY (1/3)
• TUNER BLOCK

- Input signal : 9ch (Air 187.25MHz)
- Video signal : Color bar (87.5% Mod., 1kHZ ±25kHz dev.), 60dBμ input
- Range : DC range (Unless otherwise noted)

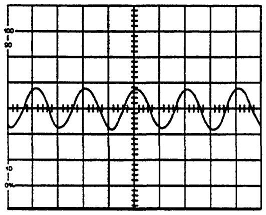
① **TV FRONT END pin 18 (VI)**
V : 1V/div, H : 20μsec/div



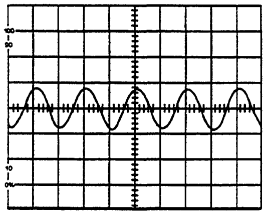
② **J697 (TV V1)**
V : 1V/div, H : 20μsec/div



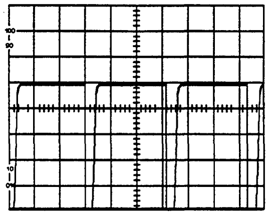
③ **D4508 Cathode (TV L)**
V : 1V/div, H : 0.5msec/div



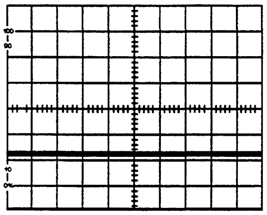
④ **D4509 Cathode (TV R)**
V : 1V/div, H : 0.5msec/div



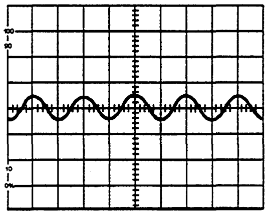
⑤ **Foot of R4538 (H SYNC 1)**
V : 1V/div, H : 20μsec/div



⑥ **Q4502 Emitter (AFT 1)**
V : 1V/div, H : 20μsec/div



⑦ **J704 (MPX)**
V : 1V/div, H : 0.5msec/div



**TV FRONT END (AXF1084)**

| Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|
| 1 | 5.4 | 10 | NC |
| 2 | 5.4 | 11 | 0 |
| 3 | GND | 12 | 0 |
| 4 | – | 13 | 9 |
| 5 | – | 14 | 4.5 |
| 6 | 9 | 15 | GND |
| 7 | 5 | 16 | 2.2 |
| 8 | NC | 17 | NC |
| 9 | 33 | 18 | 4.7 |

**IC4501 (CXA1734S)**

| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|---|---|---|---|
| 1 | – | 10 | 5.2 | 19 | 4 | 28 | 4 |
| 2 | – | 11 | 4 | 20 | 4 | 29 | 4 |
| 3 | GND | 12 | 4.4 | 21 | 4 | 30 | NC |
| 4 | GND | 13 | 4 | 22 | 1.8 | | |
| 5 | 1.3 | 14 | 4 | 23 | 4 | | |
| 6 | 1.3 | 15 | 9 | 24 | 4 | | |
| 7 | 4 | 16 | 3 | 25 | 4 | | |
| 8 | 4 | 17 | GND | 26 | 2 | | |
| 9 | 6.4 | 18 | 4 | 27 | 1.3 | | |

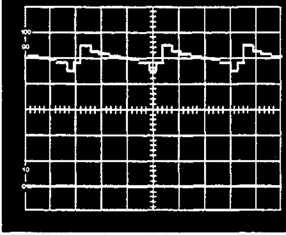
### A 2/3 TUNER • VIDEO ASSY (2/3)
• VIDEO BLOCK

**IC501 (TA8845BN)**

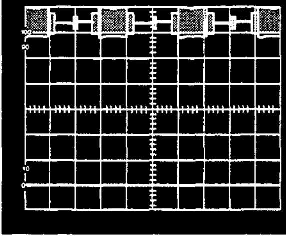
| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 9 | 0 | 17 | 0 | 25 | 0 | 33 | 0 | 41 | 9.3 | 49 | 0 | 57 | 4.8 |
| 2 | 0 | 10 | 5.4 | 18 | 3.4 | 26 | 1.7 | 34 | 5.5 | 42 | 6.3 | 50 | 6.5 | 58 | 4.8 |
| 3 | 5.2 | 11 | 0.8 | 19 | 3.6 | 27 | 0 | 35 | 5.5 | 43 | 9.2 | 51 | 4.9 | 59 | 5 |
| 4 | 7.2 | 12 | 7.1 | 20 | 3.5 | 28 | 0 | 36 | 0 | 44 | 0 | 52 | 6.5 | 60 | 0 |
| 5 | NC | 13 | 1.1 | 21 | 12.5 | 29 | 4.5 | 37 | 9.2 | 45 | 0 | 53 | 5.7 | 61 | 2.6 |
| 6 | 2.4 | 14 | 0 | 22 | 0 | 30 | 4.4 | 38 | 9.2 | 46 | 9.1 | 54 | 3.3 | 62 | 4.4 |
| 7 | 8.7 | 15 | 4.2 | 23 | 0 | 31 | 4.5 | 39 | 4.9 | 47 | 3.1 | 5 | 8.7 | 63 | 0 |
| 8 | 2.1 | 16 | 4.2 | 24 | 0 | 32 | 1.9 | 40 | 6.2 | 48 | 12.5 | 56 | 4.8 | 64 | 0 |

- Input signal : Color bar (87.5% Mod., 1kHZ ± 25kHz dev.)
- Picture quality : STANDARD
- Range : DC range (Unless otherwise noted)

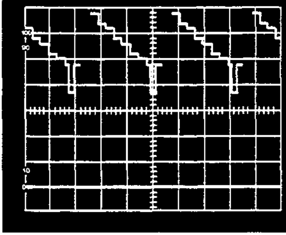
**① IC501-pin 58**
V : 1V/div, H : 20μsec/div



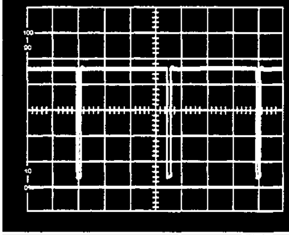
**② D540 Anode**
V : 0.5V/div, H : 20μsec/div



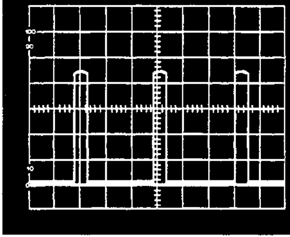
**③ IC501-pin 61**
V : 0.5V/div, H : 20μsec/div



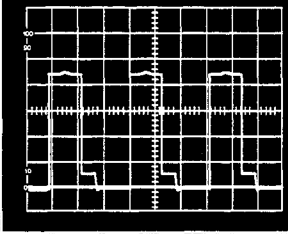
**④ IC501-pin 62**
V : 0.1V/div, H : 5msec/div



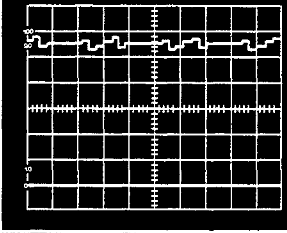
**⑤ D519 Cathode**
V : 1V/div, H : 20μsec/div



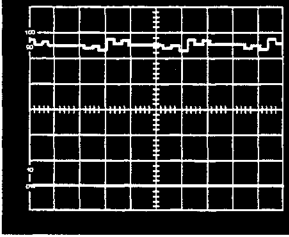
**⑥ D509 Cathode**
V : 1V/div, H : 20μsec/div



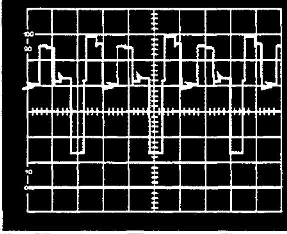
**⑦ D523 Cathode**
V : 1V/div, H : 20μsec/div



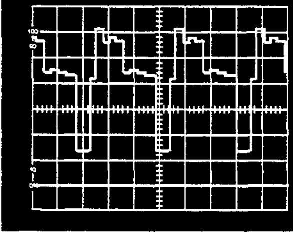
**⑧ D524 Cathode**
V : 1V/div, H : 20μsec/div



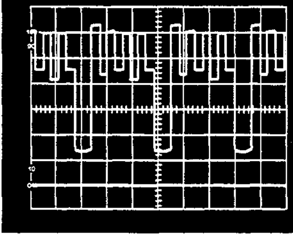
**⑨ Q533 Collector**
V : 1V/div, H : 20μsec/div



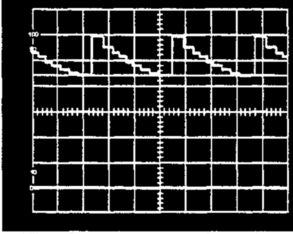
**⑩ Q532 Collector**
V : 1V/div, H : 20μsec/div



**⑪ Q531 Collector**
V : 1V/div, H : 20μsec/div



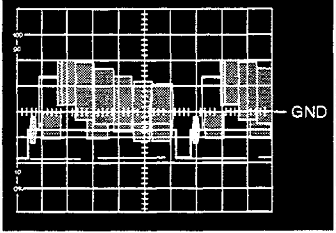
**⑫ Q509 Base**
V : 1V/div, H : 20μsec/div



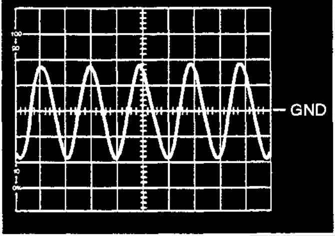
## B 2/3 AV I/O ASSY (2/3)

- AV I/O, Y/C SEP, S INPUT AND SUB WOOFER BLOCKS

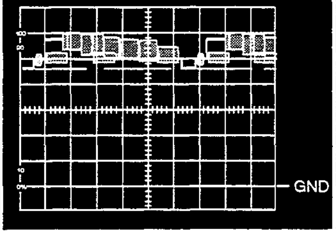
**① MONITOR OUT VIDEO**
V : 0.5V/div, H : 10msec/div



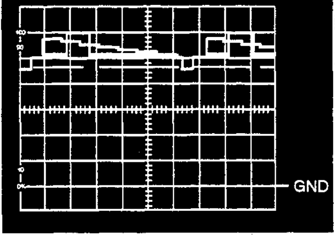
**② MONITOR OUT L ch**
V : 0.5V/div, H : 10msec/div



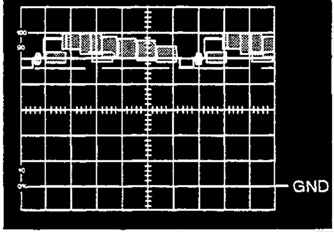
**③ F3201- VIDEO IN**
V : 1V/div, H : 10msec/div



**④ F3201- Y OUT**
V : 1V/div, H : 10msec/div



**⑤ F3201- C OUT**
V : 1V/div, H : 10msec/div



**IC3201 (MC14066BF)**

| Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|
| 1 | 4.3 | 8 | 8.4 |
| 2 | 4.3 | 9 | 8.4 |
| 3 | 4.3 | 10 | 8.4 |
| 4 | 5.4 | 11 | 8.4 |
| 5 | 0 | 12 | 12.2 |
| 6 | 0 | 13 | 12.2 |
| 7 | 0 | 14 | 12.2 |

**IC1602 (BA7644AN)**

| Pin No. | Voltage (V) |
|---|---|
| 1 | 7.5 |
| 2 | 0.2 |
| 3 | 0.2 |
| 4 | 7.5 |
| 5 | 0 |
| 6 | 7.5 |
| 7 | 12.2 |
| 8 | 7.5 |
| 9 | 0 |
| 10 | 6.1 |

**IC1603 (BA7644AN)**

| Pin No. | Voltage (V) |
|---|---|
| 1 | 7.5 |
| 2 | 0 |
| 3 | 0 |
| 4 | 7.5 |
| 5 | 0 |
| 6 | 7.5 |
| 7 | 12.2 |
| 8 | 7.5 |
| 9 | 0 |
| 10 | 6.1 |

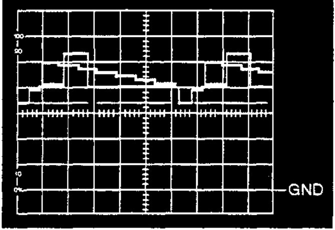
**IC1601 (TC4052BF)**

| Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|
| 1 | 6.8 | 9 | 0.2 |
| 2 | 7.2 | 10 | 0.2 |
| 3 | 6.8 | 11 | 7.2 |
| 4 | 7.1 | 12 | 6.9 |
| 5 | 7.2 | 13 | 6.9 |
| 6 | 0 | 14 | 7.2 |
| 7 | 0 | 15 | 7.2 |
| 8 | 0 | 16 | 12.2 |

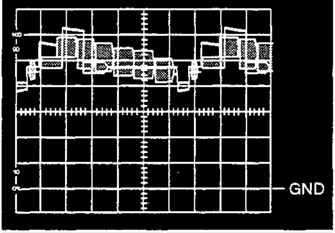
## B 3/3 AV I/O ASSY (3/3)

- P IN P, V-CHIP AND CNR BLOCKS

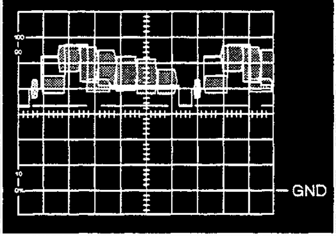
① IC3003-pin 1
V : 0.5V/div, H : 10msec/div



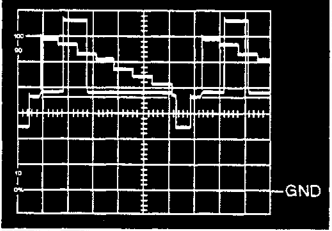
② IC3003-pin 3
V : 0.5V/div, H : 10msec/div



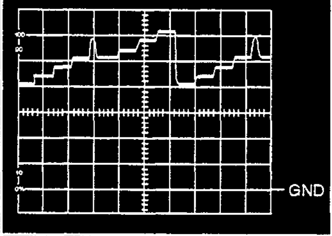
③ IC3003-pin 56
V : 0.5V/div, H : 10msec/div



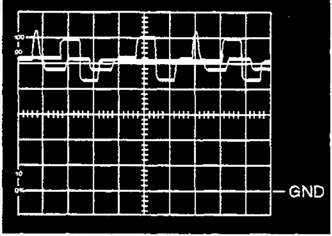
④ IC3002-pin 6
V : 0.5V/div, H : 10msec/div



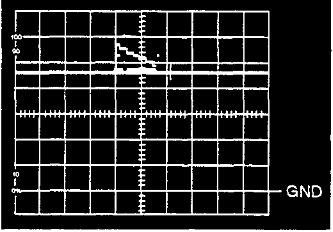
⑤ IC3002-pin 8
V : 0.5V/div, H : 10msec/div



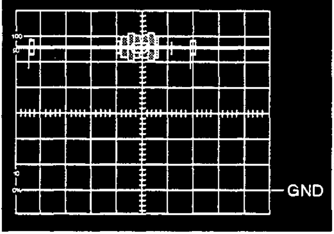
⑥ IC3002-pin 10
V : 0.5V/div, H : 10msec/div



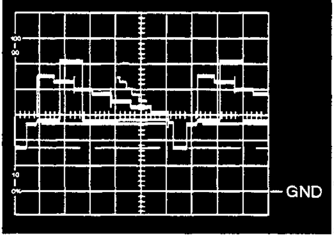
⑦ IC3003-pin 28
V : 0.5V/div, H : 10msec/div



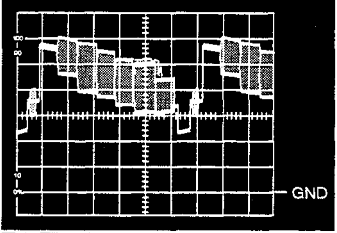
⑧ IC3003-pin 25
V : 0.5V/div, H : 10msec/div



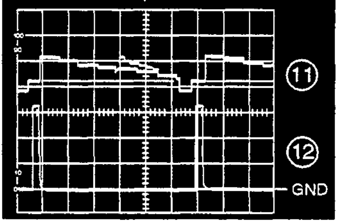
⑨ IC3003-pin 17
V : 0.5V/div, H : 10msec/div



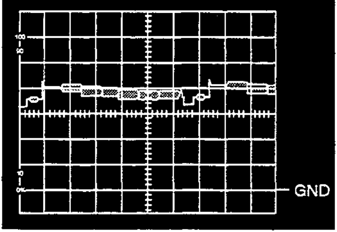
⑩ IC3003-pin 15
V : 0.5V/div, H : 10msec/div



⑪ Upper : Q3011 Emitter
⑫ Lower : IC3301-pin 10
V : 1V/div, H : 10msec/div



⑬ A3-pin 3 (C OUT)
V : 2V/div, H : 10msec/div



IC3002 (HD49420FS)

| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | 11 | 1.8 | 21 | 2.5 | 31 | 2.3 | 41 | – | 51 | – | 61 | – | 71 | 4.1 |
| 2 | 1.5 | 12 | 0 | 22 | 2.5 | 32 | 5.1 | 42 | – | 52 | – | 62 | – | 72 | 0.1 |
| 3 | 5.1 | 13 | 5.1 | 23 | 5.1 | 33 | – | 43 | – | 53 | – | 63 | – | 73 | – |
| 4 | 1.5 | 14 | 5.1 | 24 | 4.6 | 34 | 5.1 | 44 | – | 54 | – | 64 | – | 74 | 4.1 |
| 5 | 3.4 | 15 | 5.1 | 25 | 2.5 | 35 | 5 | 45 | – | 55 | – | 65 | – | 75 | 2.4(*3)<br>2 (*4) |
| 6 | 2.3 | 16 | 2.5 | 26 | 3.7 | 36 | 5 | 46 | – | 56 | – | 66 | – | 76 | 0 |
| 7 | 4.2 (*1)<br>0 (*2) | 17 | 2.6 | 27 | 3.6 | 37 | 4.7 | 47 | – | 57 | – | 67 | – | 77 | 2.5 |
| 8 | 2.6 | 18 | 5.1 | 28 | 0 | 38 | – | 48 | 5 | 58 | – | 68 | – | 78 | 2.4 |
| 9 | 5.2 | 19 | 3.7 | 29 | 2.5 | 39 | – | 49 | – | 59 | – | 69 | – | 79 | 0 |
| 10 | 2.6 | 20 | 3.6 | 30 | 0 | 40 | – | 50 | – | 60 | – | 70 | – | 80 | 2.1 |

Note ; (*1) : Main picture display ON, (*2) : Main picture display OFF
(*3) : Sub picture display ON, (*4) : Sub picture display OFF

IC3003 (HA11579)

| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.1 | 9 | 3.6 | 17 | 1.7 | 25 | 2.7 | 33 | 1.7 | 41 | 0.5(*1)<br>1.9(*2) | 49 | 1.6 |
| 2 | 0 | 10 | 3.5 | 18 | 3 | 26 | 0 | 34 | 2.5 | 42 | – | 50 | 0 |
| 3 | 2.5 | 11 | 2.6 | 19 | – | 27 | 2.3 | 35 | 3 | 43 | – | 51 | 4.9 |
| 4 | 0 | 12 | 3.8 | 20 | 5.1 | 28 | 2.3 | 36 | 4.2 | 44 | 4.3 | 52 | 1.6 |
| 5 | 5.2 | 13 | 2.6 | 21 | 0 | 29 | 2.5 | 37 | 2.3 | 45 | 0 | 53 | – |
| 6 | 0 | 14 | 2.8 | 22 | 2.8 | 30 | 2.5 | 38 | 2.4 | 46 | 0 | 54 | 4.4 |
| 7 | 1.9 | 15 | 2.2 | 23 | 2 | 31 | 3.2 | 39 | – | 47 | 0 | 55 | – |
| 8 | 1.9 | 16 | 1.6 | 24 | 5.1 | 32 | 3.2 | 40 | 0.5(*1)<br>1.9(*2) | 48 | – | 56 | 2.3 |

Note ; (*1) : Main picture display ON
(*2) : Main picture display OFF

IC3301
(MC14011BF)

| Pin No. | Voltage (V) |
|---|---|
| 1 | 4 |
| 2 | 1 |
| 3 | 4 |
| 4 | 4 |
| 5 | 1 |
| 6 | 1 |
| 7 | 0 |
| 8 | 4.7 |
| 9 | 4.7 |
| 10 | 0.1 |
| 11 | 0.4 |
| 12 | 4.4 |
| 13 | 4.4 |
| 14 | 4.8 |

IC3006
(TC4538BF)

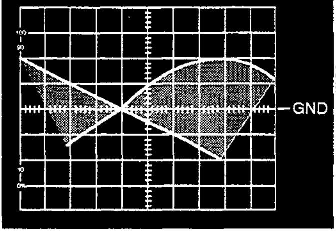
| Pin No. | Voltage (V) |
|---|---|
| 1 | 0 |
| 2 | 5 |
| 3 | 5.1 |
| 4 | 0 |
| 5 | 5 |
| 6 | 0 |
| 7 | 5 |
| 8 | 0 |
| 9 | 5 |
| 10 | 0 |
| 11 | 5 |
| 12 | 0 |
| 13 | 5.1 |
| 14 | 5 |
| 15 | 0 |
| 16 | 5.1 |

## C 1/3 AMP ASSY (1/3)

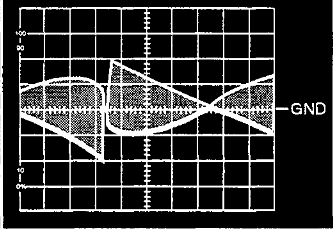
- CONVER AMP AND V. DEFLECTION BLOCKS

- Input signal :Color bar
- Picture quality : STANDARD
- Range : DC range (Unless otherwise noted)

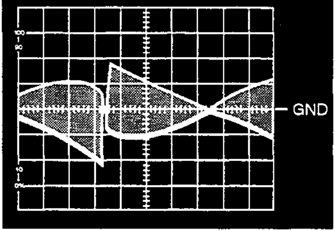
① G6 pin 6 (SVR)
V : 0.5V/div, H : 2msec/div



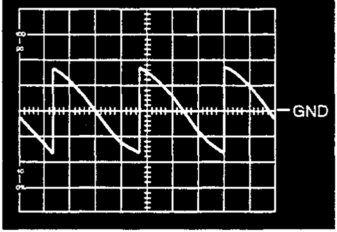
③ G5 pin 6 (SVR)
V : 0.5V/div, H : 2msec/div



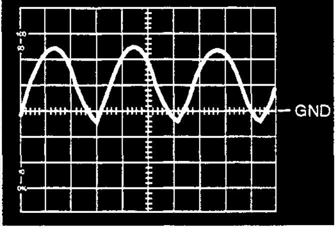
⑤ G4 pin 6 (SVR)
V : 0.5V/div, H : 2msec/div



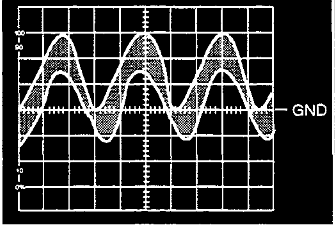
⑦ G4 pin 2 (VR)
V : 0.5V/div, H : 5msec/div



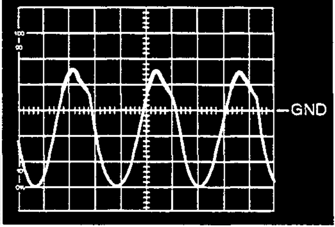
② G6 pin 4 (SHR)
V : 0.5V/div, H : 20µsec/div



④ G5 pin 4 (SHR)
V : 0.2V/div, H : 20µsec/div



⑥ G4 pin 4 (SHR)
V : 0.2V/div, H : 20µsec/div



## D CONVER CONTROL ASSY

IC2301 (PM0011AS)

| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|---|---|
| 1 | 0 | 15 | 0 | 29 | 0.1 |
| 2 | -1 | 16 | -0.8 | 30 | 0.1 |
| 3 | 0 | 17 | 0 | 31 | 5 |
| 4 | -1 | 18 | -1 | 32 | 4 |
| 5 | 0 | 19 | 0 | 33 | 5 |
| 6 | -0.4 | 20 | -0.5 | 34 | 5 |
| 7 | 0 | 21 | 5 | 35 | 0 |
| 8 | 5 | 22 | -0.5 | 36 | 0 |
| 9 | -4.8 | 23 | 0 | 37 | 0 |
| 10 | 5 | 24 | 0.1 | 38 | 0.1 |
| 11 | 5 | 25 | -0.1 | 39 | 0.1 |
| 12 | 4 | 26 | 0.1 | 40 | 0.1 |
| 13 | 5 | 27 | 0.1 | 41 | 0.1 |
| 14 | -2 | 28 | 0.1 | 42 | 0.1 |

IC2302 (PM0011AS)

| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|---|---|
| 1 | 0 | 15 | 0 | 29 | 0.1 |
| 2 | -1 | 16 | -0.8 | 30 | 0.1 |
| 3 | 0 | 17 | 0 | 31 | 5 |
| 4 | -1 | 18 | -1 | 32 | 4 |
| 5 | 0 | 19 | 0 | 33 | 5 |
| 6 | -0.4 | 20 | -0.5 | 34 | 5 |
| 7 | 0 | 21 | 5 | 35 | 0 |
| 8 | 5 | 22 | 0 | 36 | 0 |
| 9 | -4.8 | 23 | 0 | 37 | 0 |
| 10 | 5 | 24 | 0.1 | 38 | 0 |
| 11 | 5 | 25 | -0.2 | 39 | 0 |
| 12 | 4 | 26 | 0.1 | 40 | 0 |
| 13 | 5 | 27 | 0.1 | 41 | -0.4 |
| 14 | -2 | 28 | 0.1 | 42 | 0 |

IC2303 (PM0011AS)

| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|---|---|
| 1 | 0 | 15 | 0 | 29 | 0.1 |
| 2 | -1 | 16 | -0.8 | 30 | -0.1 |
| 3 | 0 | 17 | 0 | 31 | 5 |
| 4 | -1 | 18 | -1 | 32 | 4 |
| 5 | 0 | 19 | 0 | 33 | 5 |
| 6 | -0.4 | 20 | -0.5 | 34 | 5 |
| 7 | 0 | 21 | 5 | 35 | 0 |
| 8 | 5 | 22 | -0.5 | 36 | 0 |
| 9 | -4.8 | 23 | -0.4 | 37 | 0 |
| 10 | 5 | 24 | 0.2 | 38 | 0 |
| 11 | 5 | 25 | -0.2 | 39 | 0 |
| 12 | 4 | 26 | 0.1 | 40 | 0.1 |
| 13 | 5 | 27 | 0.1 | 41 | 0.6 |
| 14 | -2 | 28 | 0.1 | 42 | 0 |

IC2307 (PA0053B)

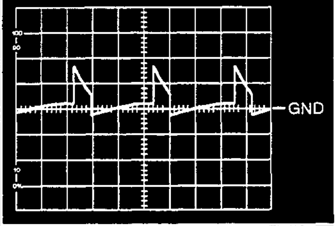
| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|---|---|
| 1 | 0.4 | 7 | -1 | 13 | 0.3 |
| 2 | 1.1 | 8 | 0 | 14 | 1.2 |
| 3 | 5 | 9 | -4.9 | 15 | 0 |
| 4 | 0 | 10 | 0.2 | 16 | -2.1 |
| 5 | -1 | 11 | 0.5 | 17 | 1.2 |
| 6 | 0 | 12 | -1 | 18 | -1.5 |

IC2308 (PA0053B)

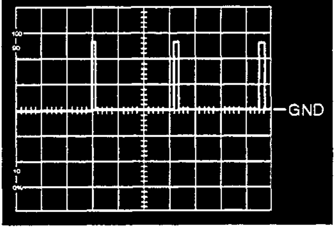
| Pin No. | Voltage (V) | Pin No. | Voltage (V) | Pin No. | Voltage (V) |
|---|---|---|---|---|---|
| 1 | 0.2 | 7 | -1.1 | 13 | 0.4 |
| 2 | 1.2 | 8 | 0 | 14 | 1.2 |
| 3 | 5 | 9 | -4.9 | 15 | 0 |
| 4 | 0 | 10 | 0.2 | 16 | -0.6 |
| 5 | -0.8 | 11 | 0.5 | 17 | 1.2 |
| 6 | 0 | 12 | -0.8 | 18 | -1.5 |

- Input signal : Color bar
- Picture quality : STANDARD
- Range : DC range (Unless otherwise noted)

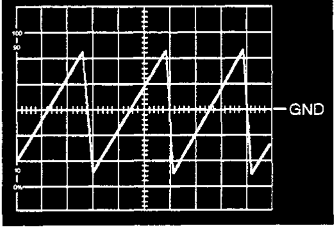
① **D2301 Anode**
V : 2V/div, H : 20μsec/div



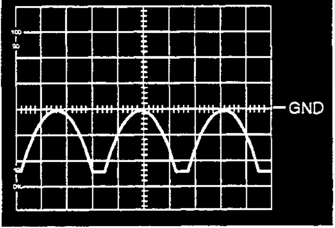
② **Between R2314 and R2315**
V : 2V/div, H : 5msec/div



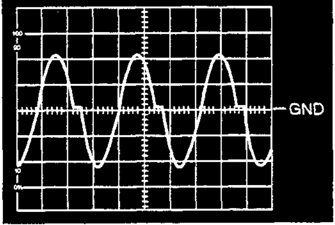
③ **Q2304 Base**
V : 0.5V/div, H : 20μsec/div



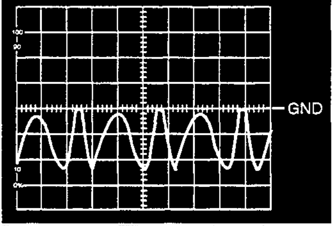
④ **Q2302 Base**
V : 1V/div, H : 20μsec/div



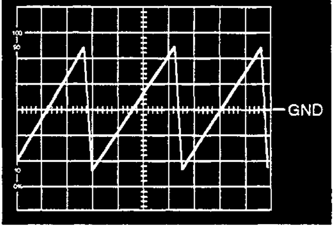
⑤ **IC2307-pin 6**
V : 0.5V/div, H : 20μsec/div



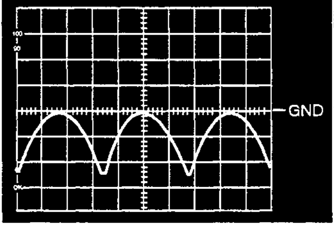
⑥ **IC2307-pin 7**
V : 1V/div, H : 20μsec/div



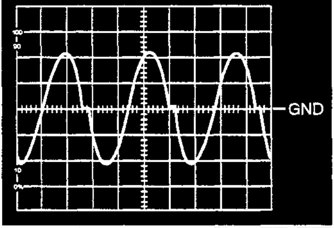
⑦ **Q2306 Base**
V : 0.5V/div, H : 5msec/div



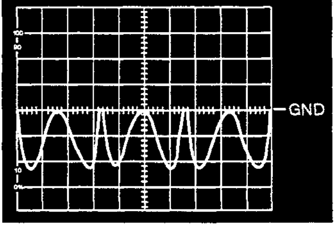
⑧ **Q2308 Base**
V : 1V/div, H : 5msec/div



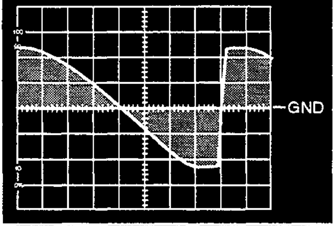
⑨ **IC2308-pin 6**
V : 0.5V/div, H : 5msec/div



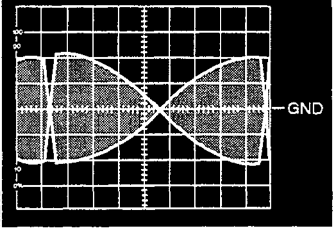
⑩ **IC2308-pin 7**
V : 1V/div, H : 5msec/div



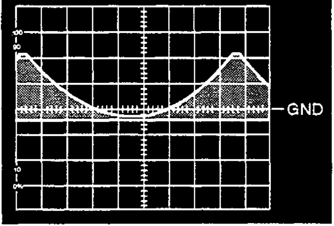
⑪ **C2371 ⊖ side**
V : 0.5V/div, H : 2msec/div



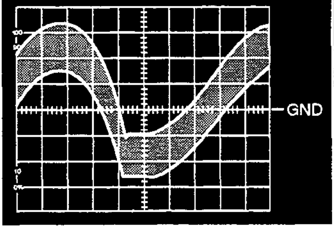
⑫ **C2363 ⊖ side**
V : 0.5V/div, H : 2msec/div



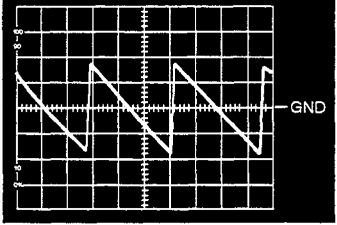
⑬ **C2370 ⊖ side**
V : 0.5V/div, H : 2msec/div



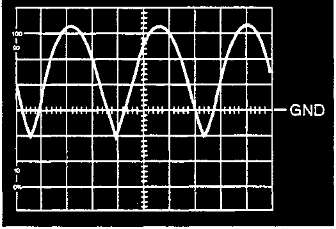
⑭ **IC2305-pin 1**
V : 1V/div, H : 2msec/div



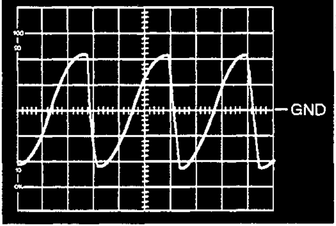
⑮ **IC2304-pin 1**
V : 0.5V/div, H : 5msec/div



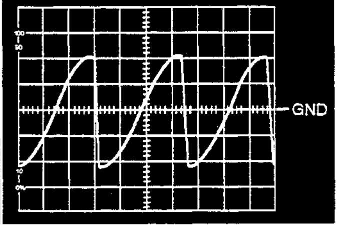
⑯ **IC2304-pin 7**
V : 0.5V/div, H : 5msec/div



⑰ **IC2306-pin 7**
V : 0.5V/div, H : 20μsec/div



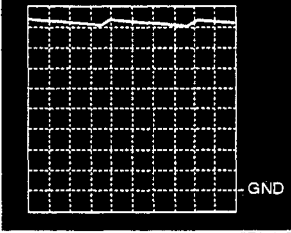
⑱ **IC2306-pin 1**
V : 0.5V/div, H : 5msec/div



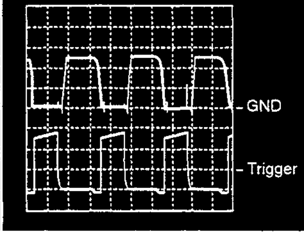
## I 1/2 POWER SUPPLY SERVICE ASSY (1/2)

- POWER SUPPLY BLOCK

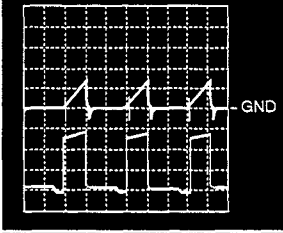
① **D101-pin 1**
V : 20V/div, H : 2nsec/div



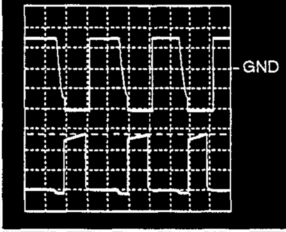
⑤ **IC101-pin 1**
V : 1V/div, H : 5μsec/div



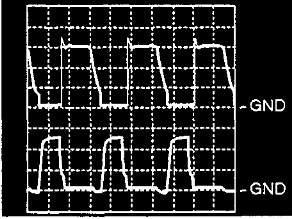
⑦ **IC101-pin 3**
V : 0.5V/div, H : 5μsec/div



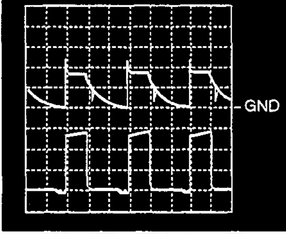
⑩ **D112 Anode**
V : 10V/div, H : 5μsec/div



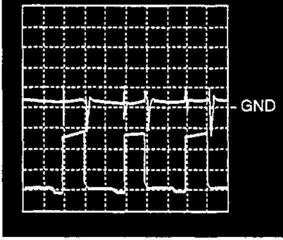
② **Upper : Q113 Drain**
V : 100V/div, H : 5μsec/div
③ **Lower : Q113 Gate**
V : 5V/div, H : 5μsec/div



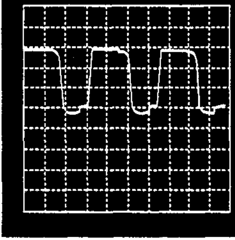
⑥ **IC101-pin 2**
V : 0.5V/div, H : 5μsec/div



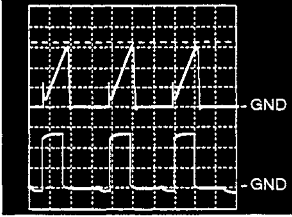
⑧ **IC101-pin 4**
V : 0.2V/div, H : 5μsec/div



⑪ **D106 Cathode**
V : 2V/div, H : 5msec/div



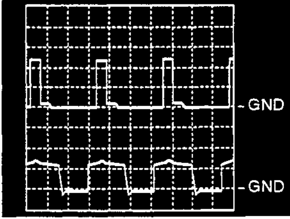
④ **Upper : Q113 Source**
V : 0.2V/div, H : 5μsec/div
⑨ **Lower : IC101-pin 6 (Trigger)**
V : 5V/div, H : 5μsec/div



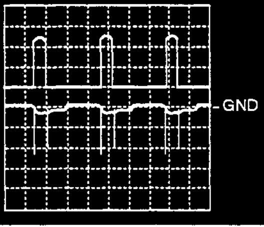
## I 2/2 POWER SUPPLY SERVICE ASSY (2/2)

- DEFLECTION BLOCK

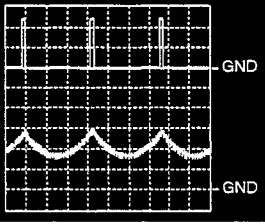
⑤ **Upper : Q218 Emitter**
V : 5V/div, H : 20μsec/div
① **Lower : Q211 Base**
V : 0.5V/div, H : 20μsec/div



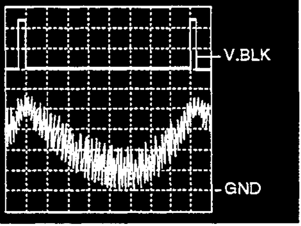
③ **Q214 Base**
V : 5V/div, H : 20μsec/div



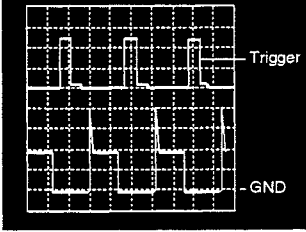
⑥ **Upper : V. BLK (Trigger)**
**Lower : Q213 Collector**
V : 10V/div, H : 5msec/div



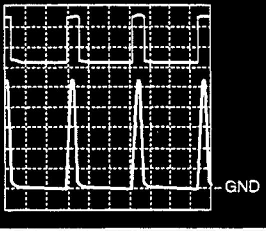
⑦-2/2 **Q216 Collector**
V : 200V/div, H : 20μsec/div



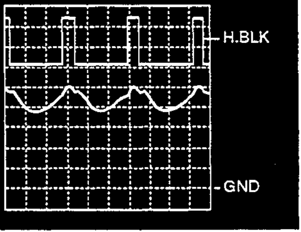
② **Q211 Collector**
V : 20V/div, H : 20μsec/div



④ **Q214 Collector**
V : 200V/div, H : 20μsec/div



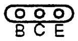
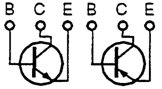
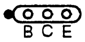
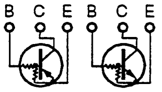
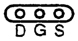
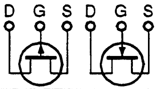
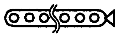
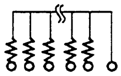
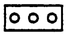
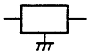
⑦-1/2 **Q216 Collector**
V : 200V/div, H : 20μsec/div



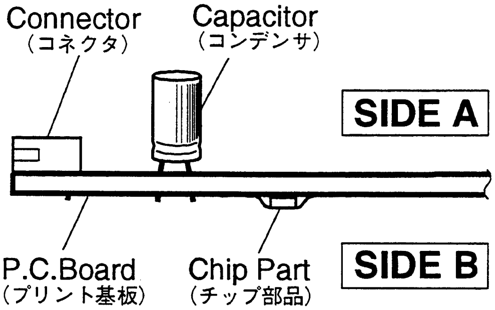
# 4. PCB CONNECTION DIAGRAM

## NOTE FOR PCB DIAGRAMS :

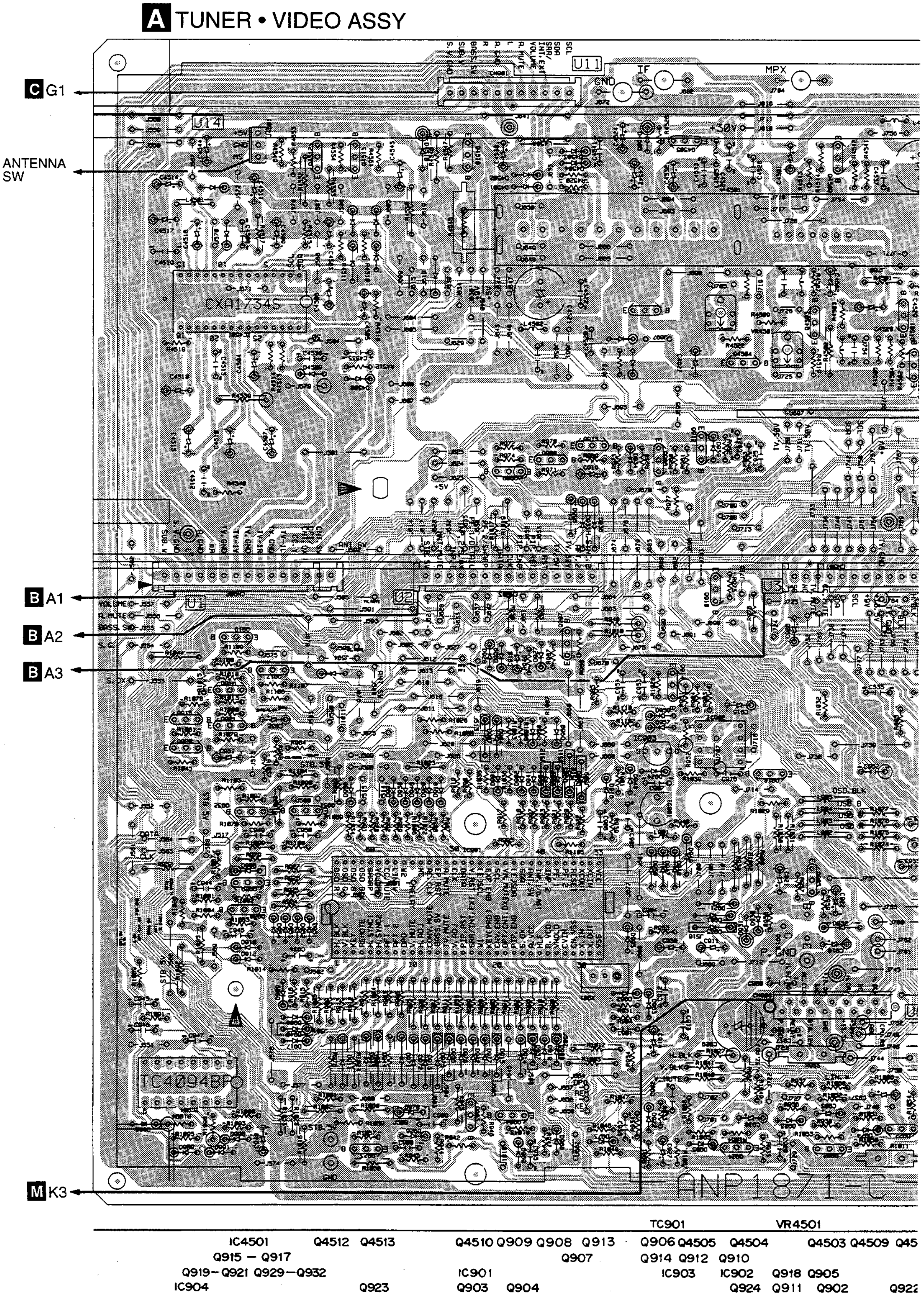
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

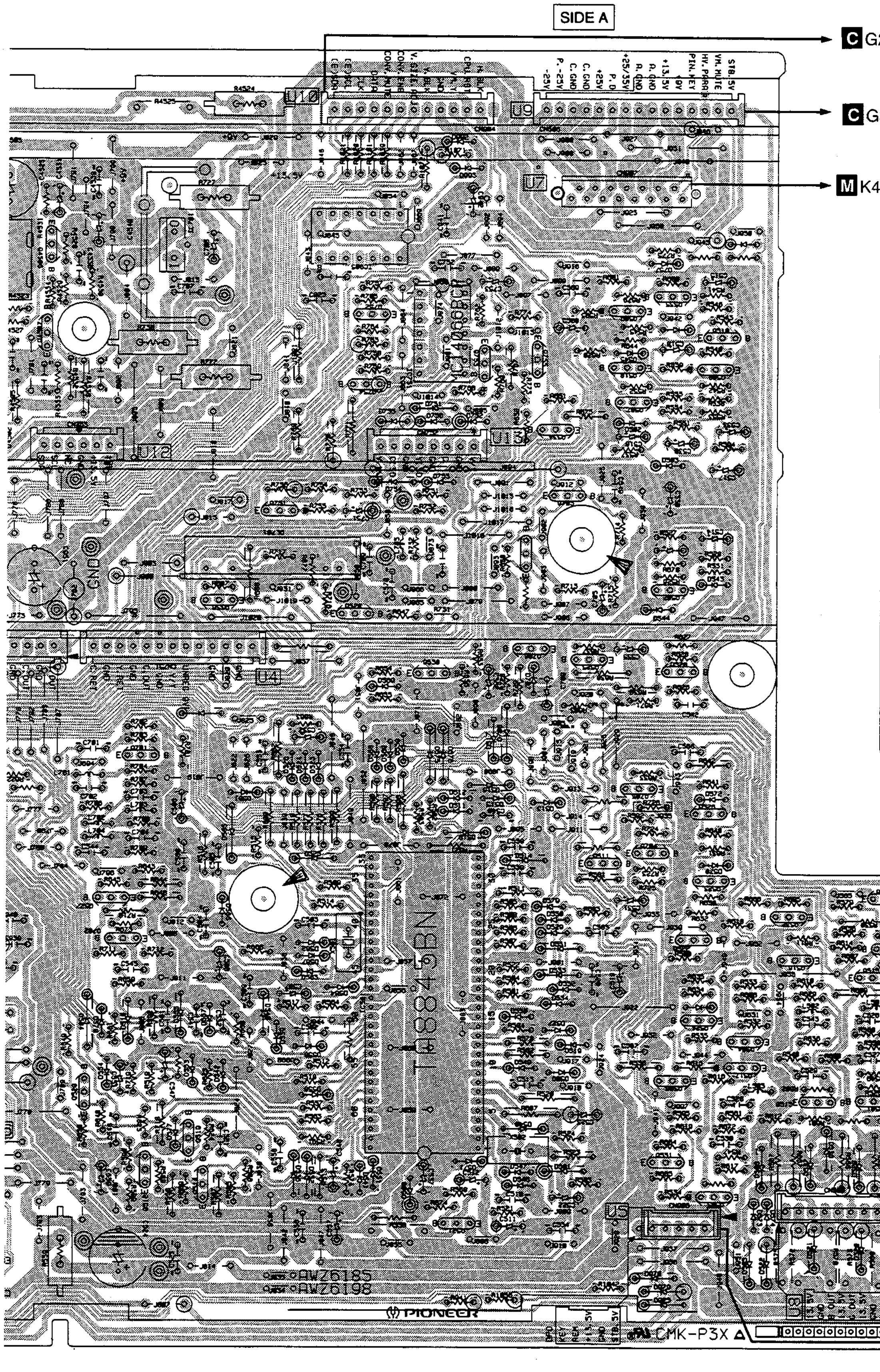
| Symbol In PCB Diagrams | Symbol In Schematic Diagrams | Part Name |
|---|---|---|
|  |  | Transistor |
|  |  | Transistor with resistor |
|  |  | Field effect transistor |
|  |  | Resistor array |
|  |  | 3-terminal regulator |

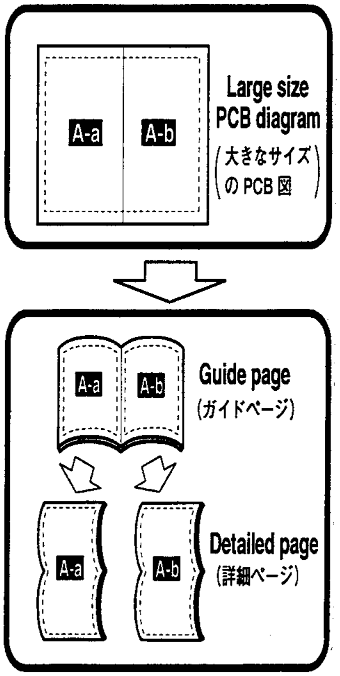
3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.


Connector
(コネクタ)
Capacitor
(コンデンサ)
SIDE A
P.C.Board
(プリント基板)
Chip Part
(チップ部品)
SIDE B

## 4.1 TUNER • VIDEO ASSY (GUIDE PAGE)


A TUNER • VIDEO ASSY
C G1
ANTENNA SW
B A1
B A2
B A3
M K3
U11
IF
MPX
GND
U14
+30V
CXA1734S
U1
U2
U3
VOLUME
R. MUTE
BASS SW
S.C.
S. DX
TC4094BF
P. GND
OSD BLK
ANP1871-C
TC901
VR4501
IC4501
Q4512
Q4513
Q4510
Q909
Q908
Q913
Q906
Q4505
Q4504
Q4503
Q4509
Q45
Q915 – Q917
Q907
Q914
Q912
Q910
Q919–Q921
Q929–Q932
IC901
IC903
IC902
Q918
Q905
IC904
Q923
Q903
Q904
Q924
Q911
Q902
Q92


SIDE A
C G2
C G3
M K4
F M1
G N1
H P1
J B1
U10
U9
U7
U12
U13
U4
U5
CMK-P3X
AWZ6185
AWZ6198
PIONEER
GND


A-a
A-b
Large size PCB diagram
(大きなサイズのPCB図)
Guide page
(ガイドページ)
Detailed page
(詳細ページ)

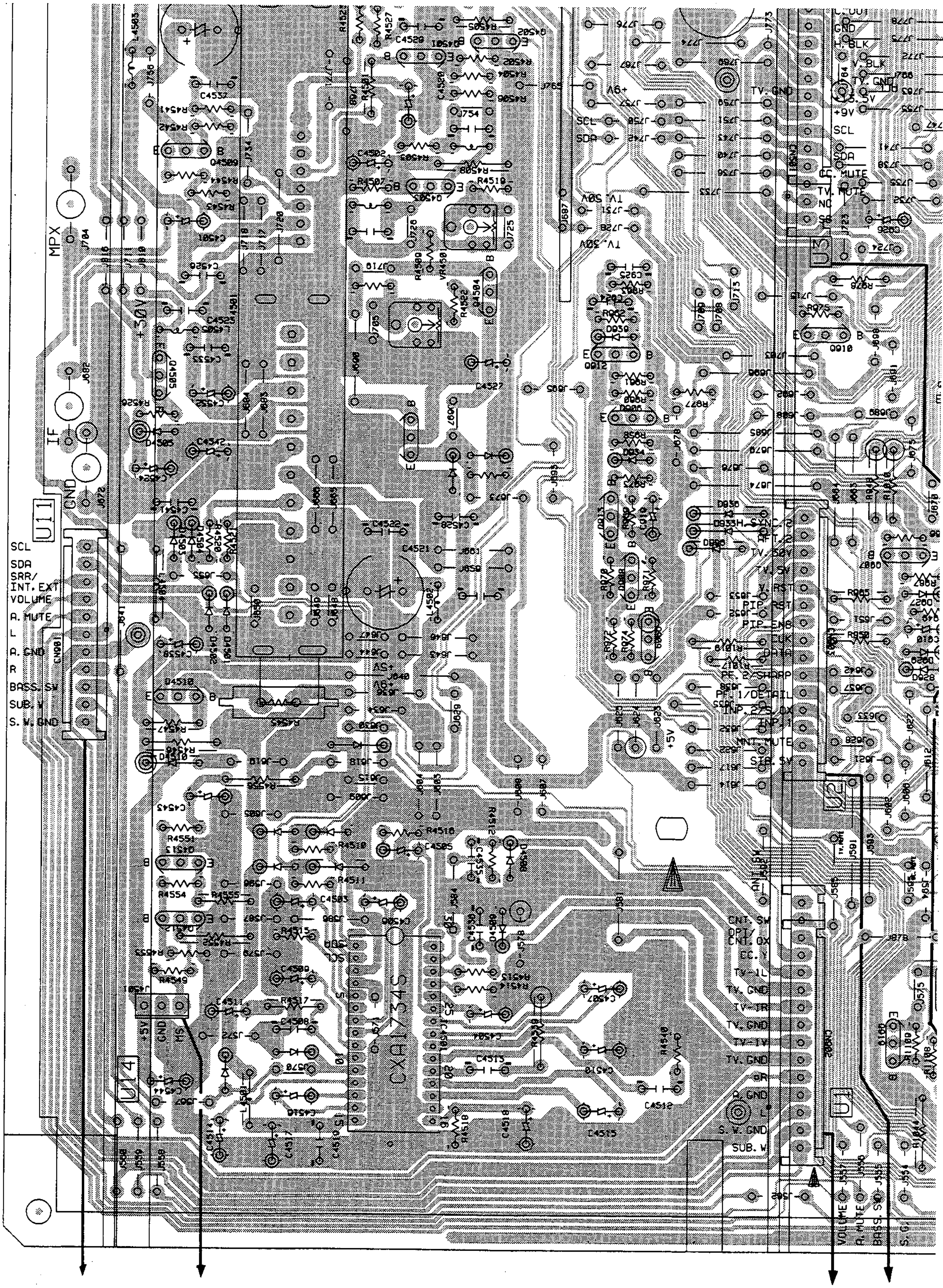
01 Q4502 Q4506 Q4507 IC701 IC905 Q752 IC751 Q753 Q755 Q507 – Q510

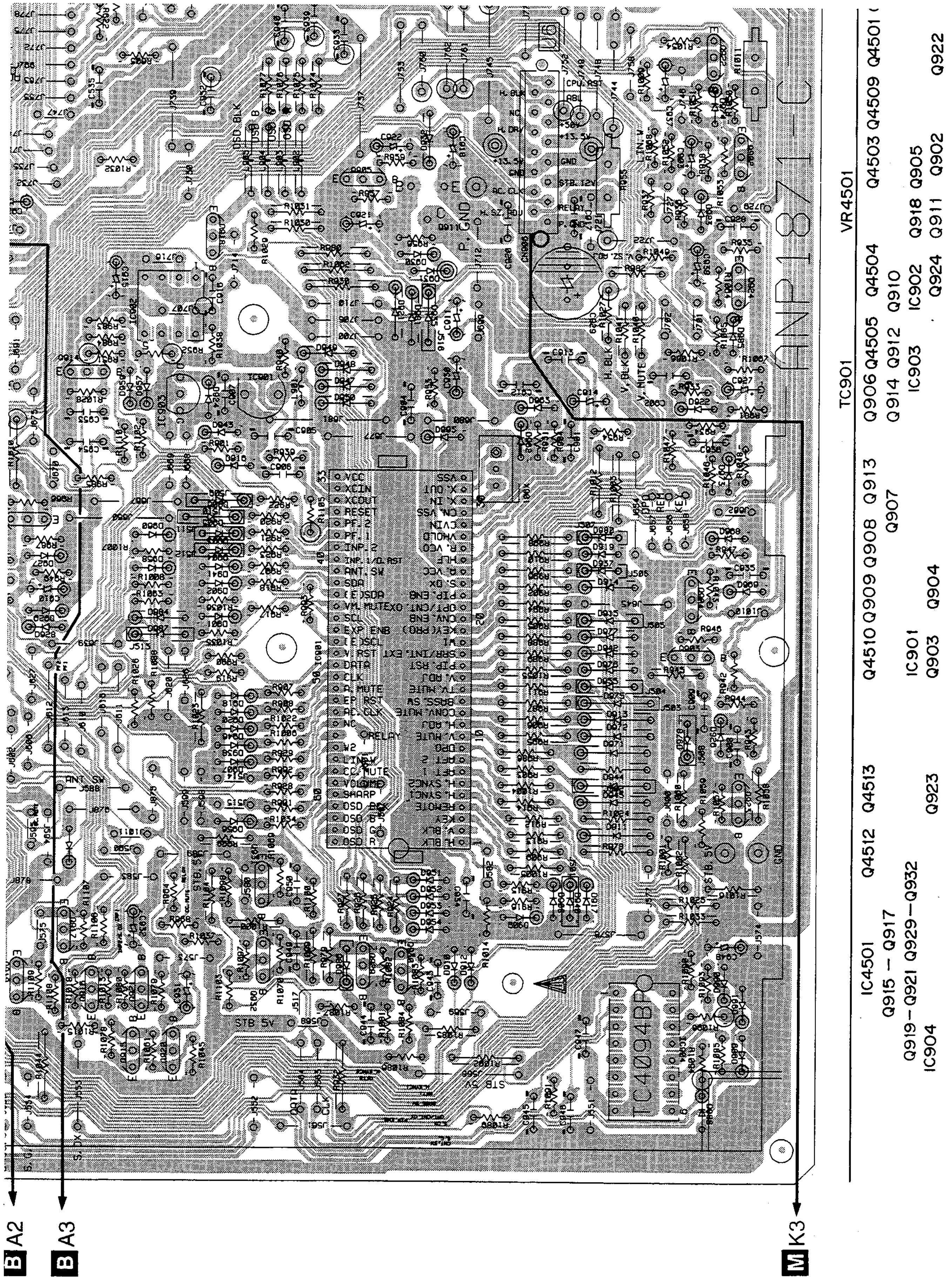
Q527 Q701 Q536 Q751 Q528 Q754 Q530 Q706 Q534 Q703 Q518 Q535 Q502 Q526 Q532 Q503

Q702 Q519 IC501 Q525 Q531 Q520 Q522 – Q524 Q516 Q515 Q533

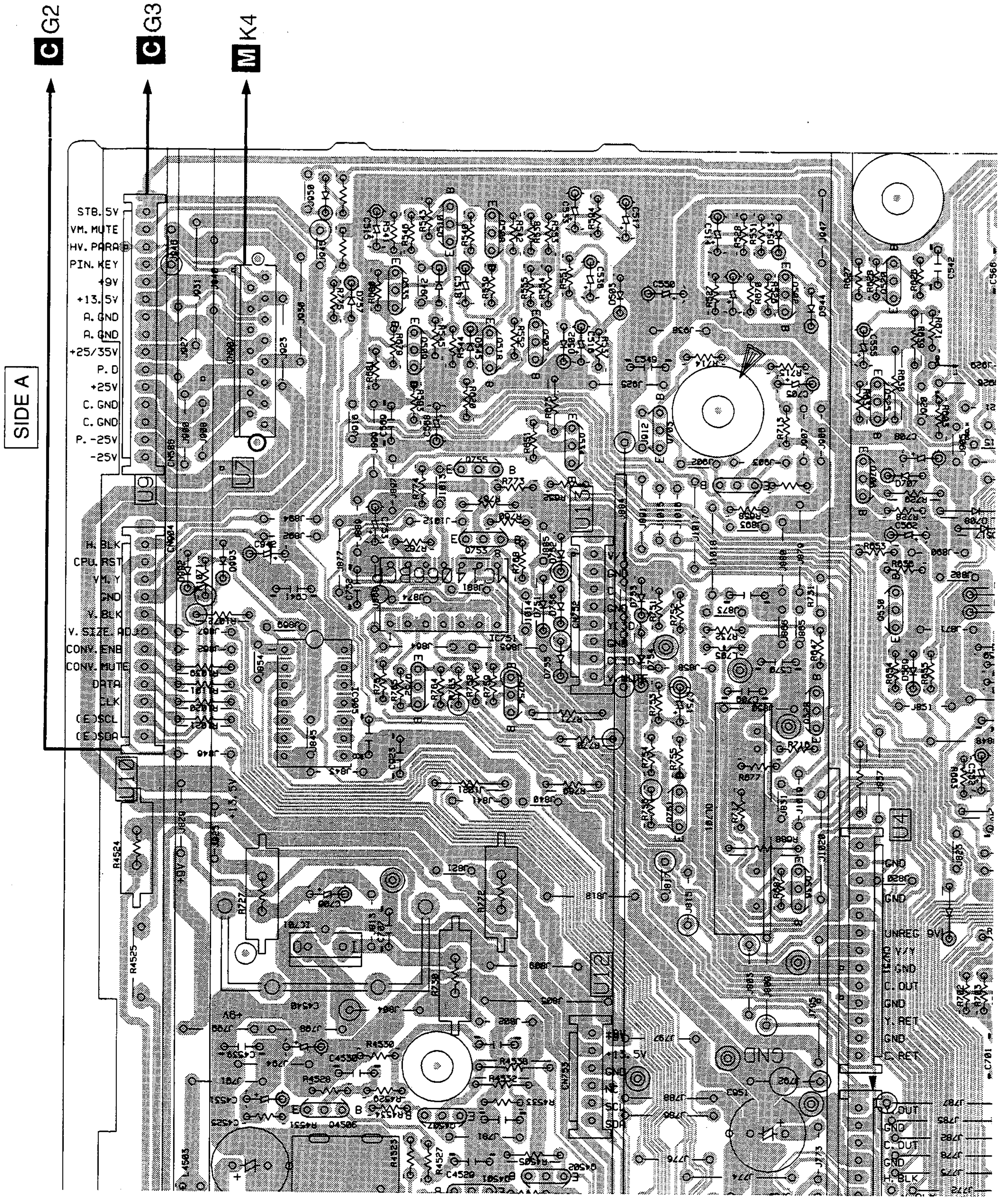
Q529 Q512 Q514 Q521 Q511 Q705 Q704 Q504 – Q506 Q517 Q513 Q501

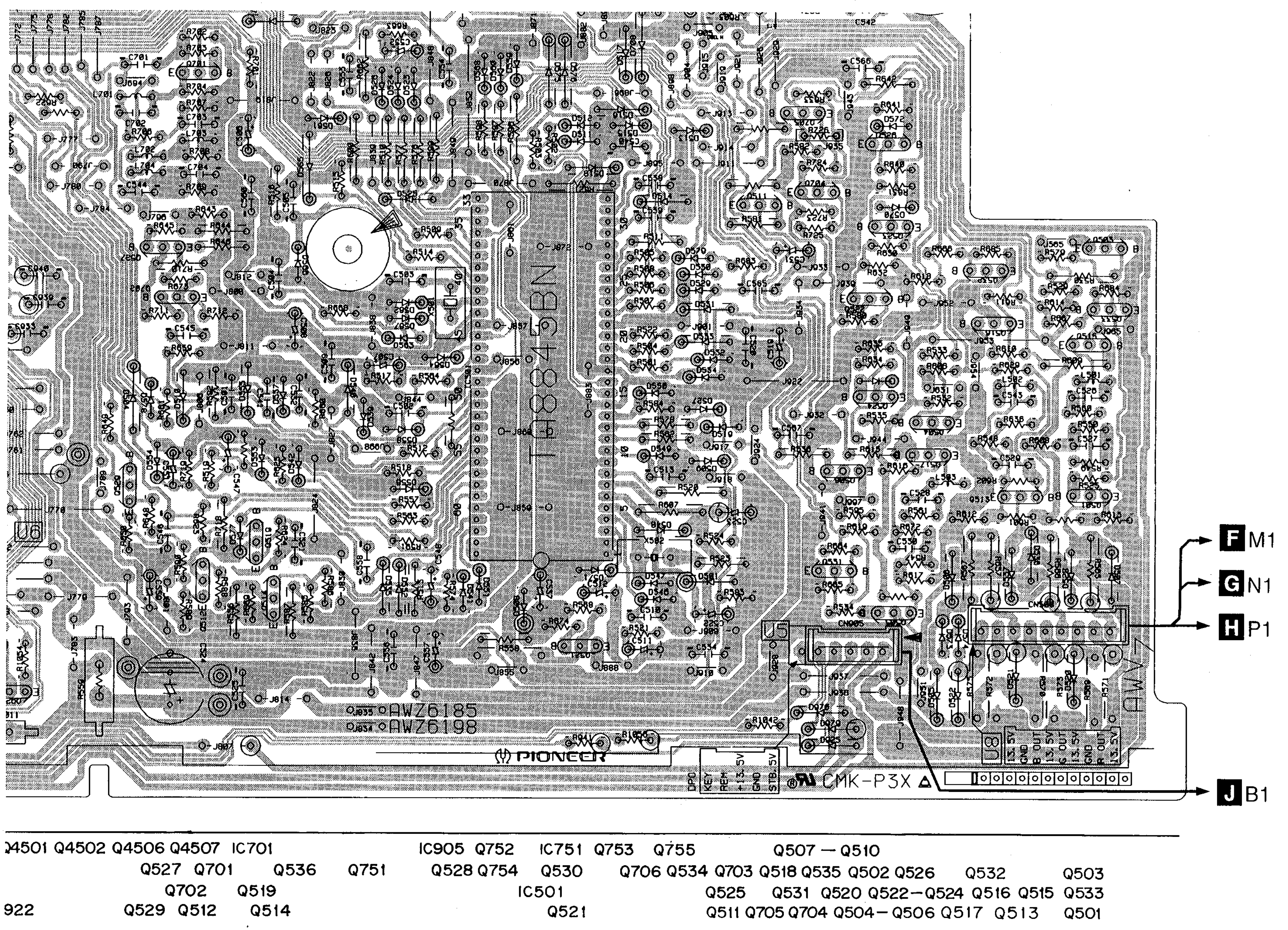
## A TUNER • VIDEO ASSY


MPX
IF
GND
U11
U14
U13
U12
U1
CN901
SCL
SDA
SRR/ INT. EXT
VOLUME
A. MUTE
L
A. GND
R
BASS. SW
SUB. V
S. W. GND
+30V
CXA1734S
TV. GND
+9V
SCL
SDA
CC. MUTE
TV. MUTE
H. SYNC
AFT
TV. 5V
PIP. RST
PIP. ENB
CLK
DATA
PF. 2/SHARP
PF. 1/DETAIL
INP. 2/S. DX
INP. 1
MNT. MUTE
SIR. 5V
CNT. SW
OPT/ CNT. OX
EC. Y
TV-1L
TV-1R
TV-1V
A. GND
S. W. GND
SUB. W
VOLUME
A. MUTE
BASS. SW
C G1
ANTENNA SW
B A1
B A2

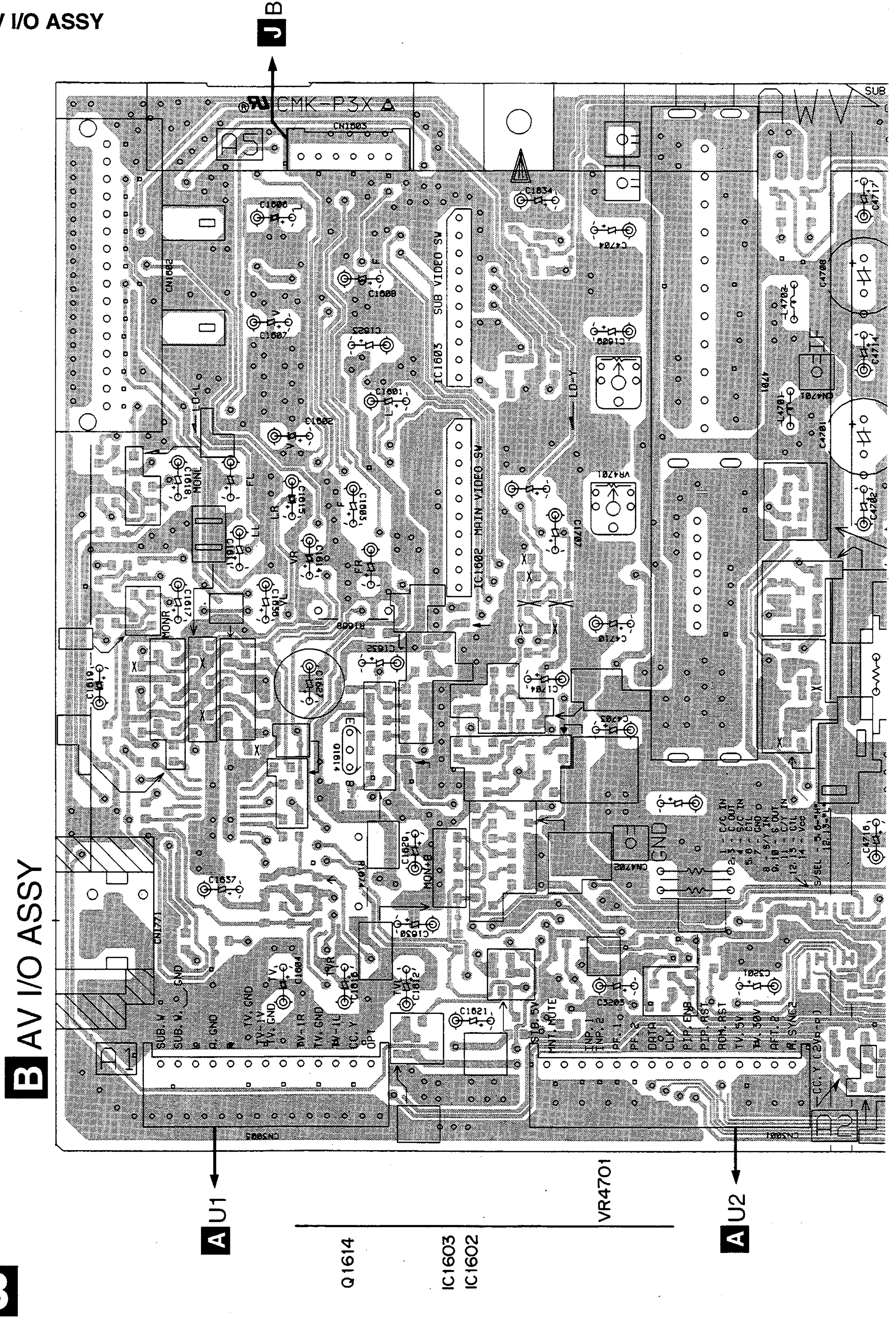

TC901
VR4501
Q906 Q4505 Q4504 Q4503 Q4509 Q4501
Q914 Q912 Q910
IC903 IC902 Q918 Q905
Q924 Q911 Q902 Q922
Q4510 Q909 Q908 Q913
Q907
IC901
Q903 Q904
IC4501 Q4512 Q4513
Q915 – Q917
Q919–Q921 Q929–Q932
IC904
Q923
TC4094BP
B A2
B A3
M K3

**A-a A-b**

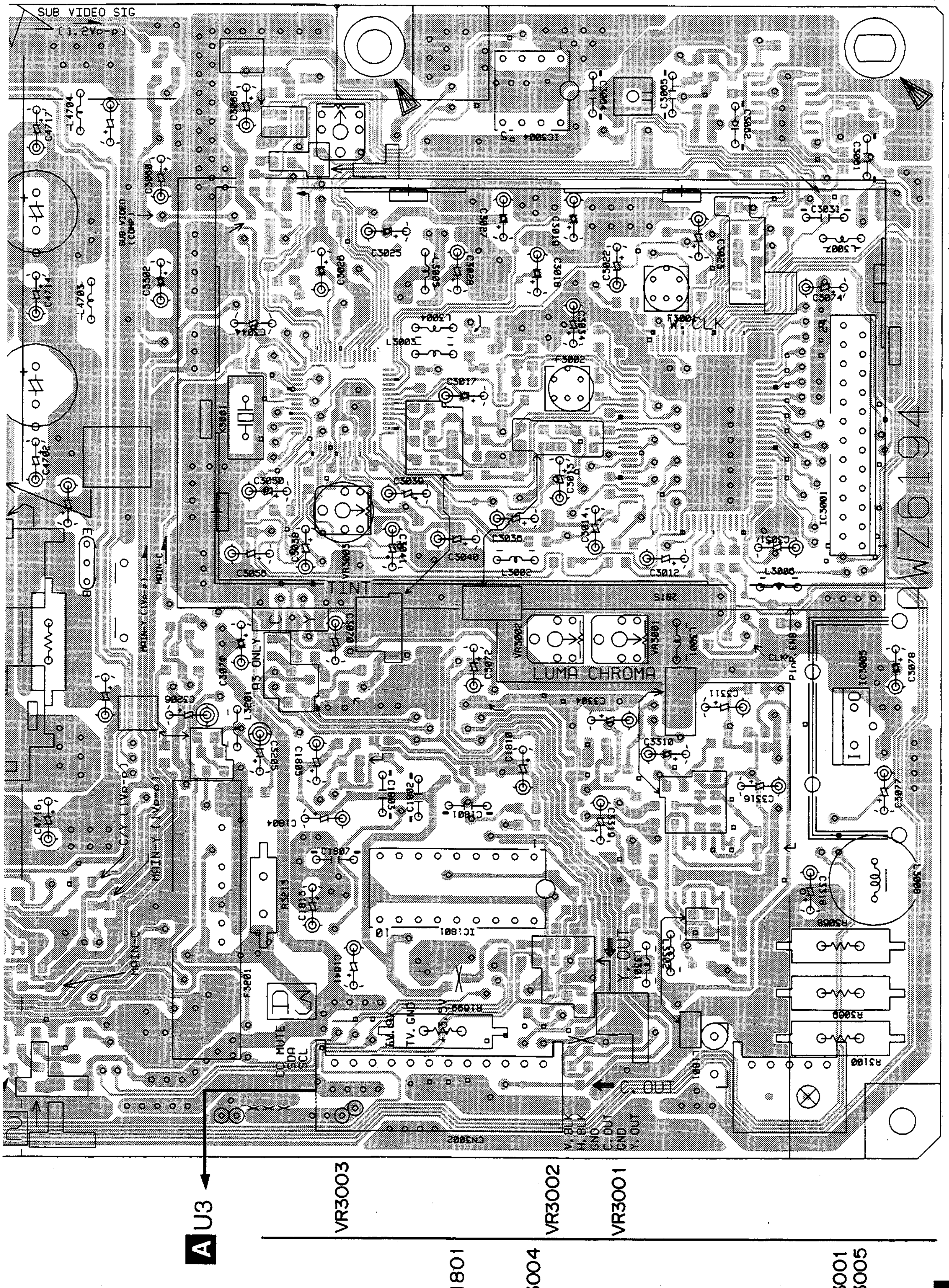

C G2
C G3
M K4
SIDE A
STB.5V
VM.MUTE
HV.PARA
PIN.KEY
+9V
+13.5V
A.GND
A.GND
+25/35V
P.D
+25V
C.GND
C.GND
P.-25V
-25V
H.BLK
CPU.RST
VM.Y
GND
V.BLK
V.SIZE.ADJ
CONV.ENB
CONV.MUTE
DATA
CLK
CE)SCL
CE)SDA
U7
U9
U10
U11
U12
U4
+13.5V
+9V
GND
GND
UNREG 9V
Y/Y
GND
C.OUT
GND
Y.RET
GND
C.RET
+5V
GND
NC
SCL
SDA
GND
OUT
GND
C.OUT
GND
H.BLK


F M1
G N1
H P1
J B1
CMK-P3X
AWZ6185
AWZ6198
PIONEER
DPO KEY REM +13.5V GND STB.5V
U8 13.5V GND B OUT 13.5V G OUT 13.5V GND R OUT 13.5V
AWZ
U5
U6
TA8843BN
Q4501 Q4502 Q4506 Q4507 IC701
Q527 Q701 Q536 Q751
Q702 Q519
922 Q529 Q512 Q514
IC905 Q752 IC751 Q753 Q755 Q507 — Q510
Q528 Q754 Q530 Q706 Q534 Q703 Q518 Q535 Q502 Q526 Q532 Q503
IC501 Q525 Q531 Q520 Q522—Q524 Q516 Q515 Q533
Q521 Q511 Q705 Q704 Q504—Q506 Q517 Q513 Q501

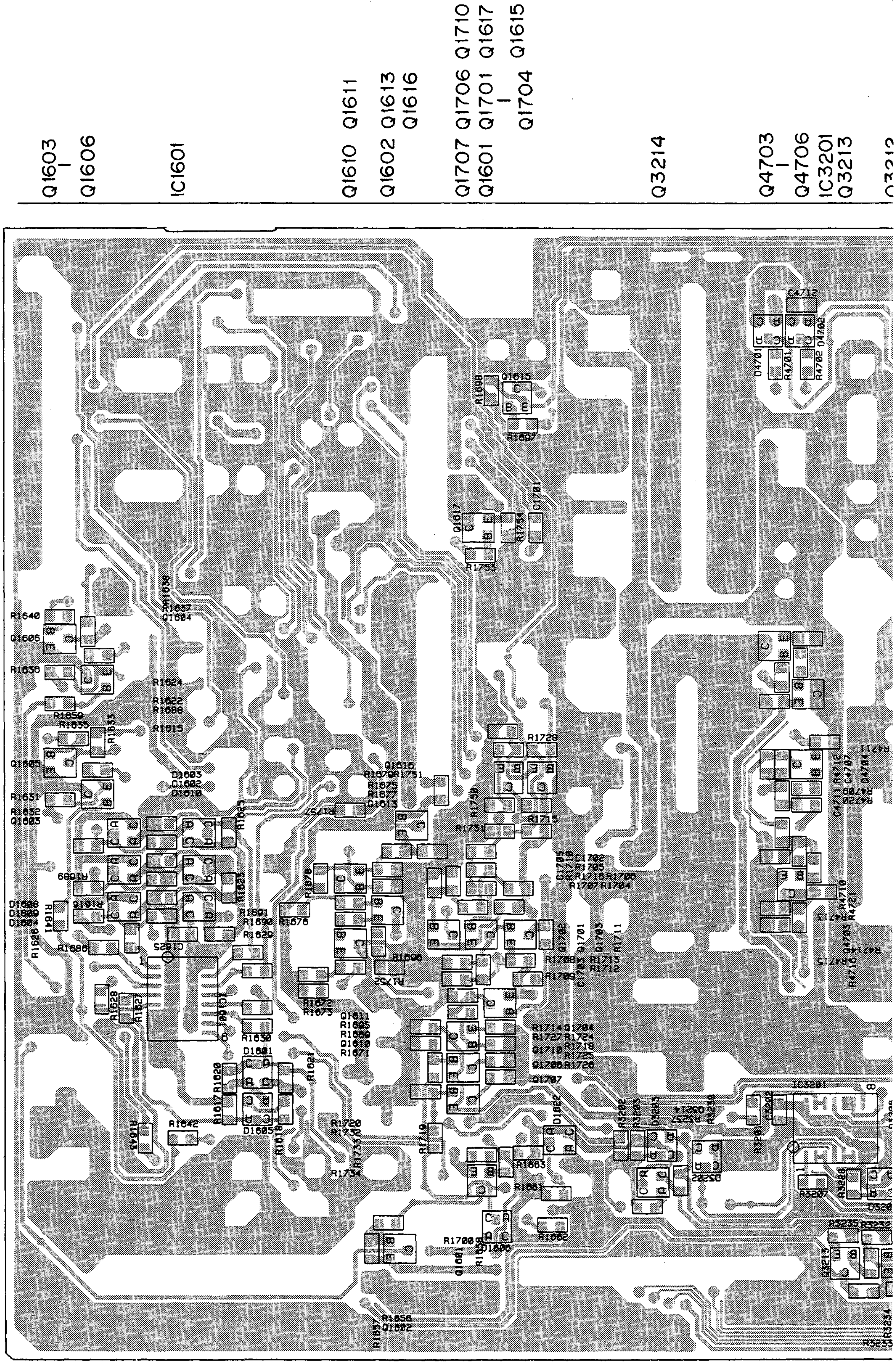
## 4.2 AV I/O ASSY


J B3
B AV I/O ASSY
CMK-P3X
CN1603
CN1602
IC1603 SUB VIDEO SW
IC1602 MAIN VIDEO SW
VR4701
CN4701
CN4702
CN1771
CN2805
CN2801
GND
A U1
A U2
Q1614
IC1603
IC1602
VR4701

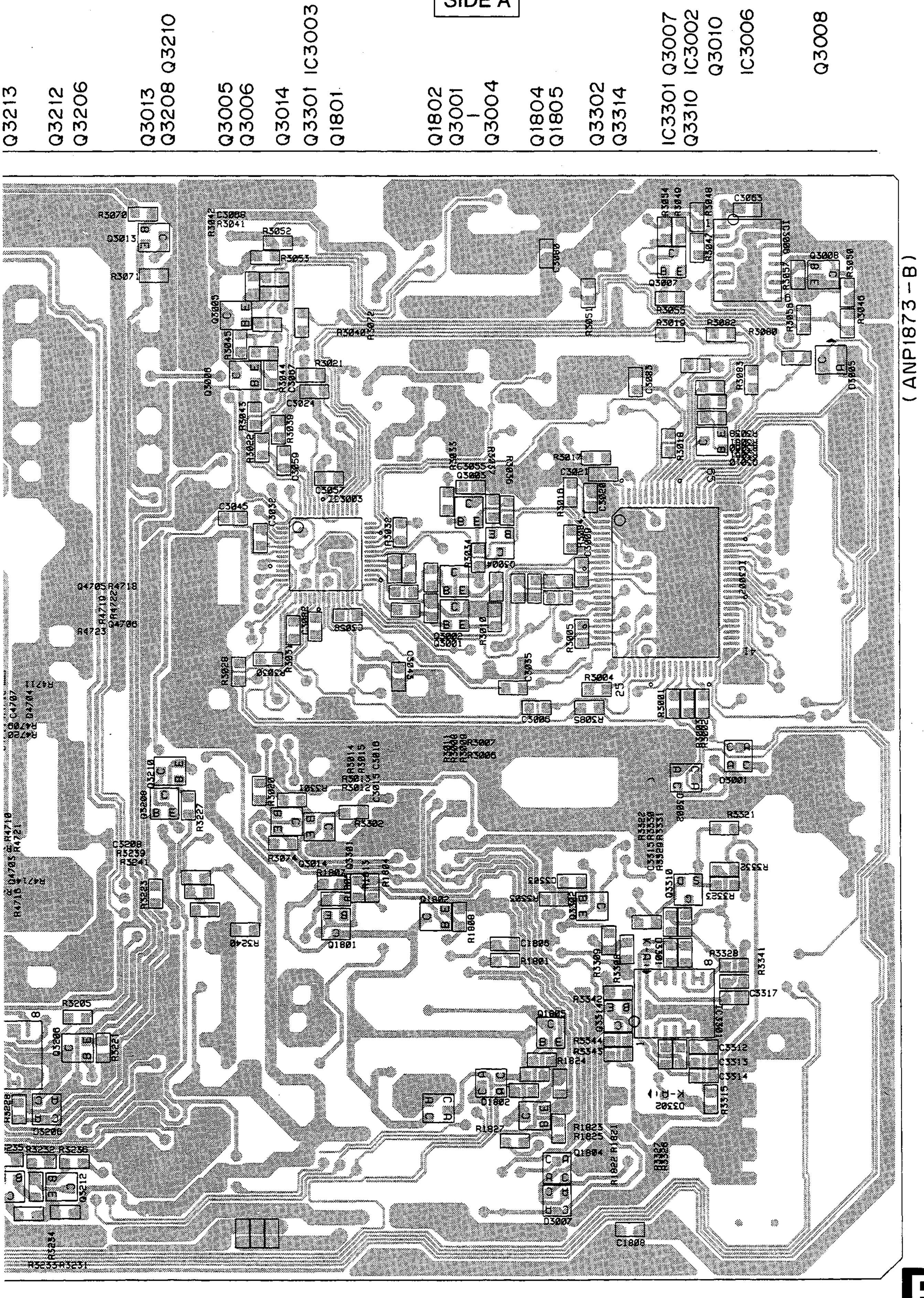
SIDE A


SUB VIDEO SIG
(1.2Vp-p)
(ANP1873-B)
SUB VIDEO (COMP)
MAIN-Y (1Vp-p)
MAIN-C
C/Y (1Vp-p)
MAIN-Y (1Vp-p)
MAIN-C
TINT
C
Y
A3 ONLY
LUMA CHROMA
VR3002
VR3001
VR3003
CLK
M.CLK
PinP ENB
Y.OUT
C.OUT
DC MUTE
SDA
SCL
TV.GND
G.M.GND
V.BLK
H.BLK
GND
C.OUT
GND
Y.OUT
CN3002
IC1801
IC3001
IC3004
IC3005
X3001
F3001
F3002
R3213
R1099
R3008
R3009
R3100
WZ6194
A U3
VR3003
VR3002
VR3001
IC1801
IC3004
IC3001
IC3005

## B AV I/O ASSY


Q1603 – Q1606
IC1601
Q1610 Q1611
Q1602 Q1613 Q1616
Q1707 Q1706 Q1710
Q1601 Q1701 – Q1704 Q1617 Q1615
Q3214
Q4703 – Q4706
IC3201
Q3213
C4712
D4701 R4701 R4702 D4702
R1698 Q1615 R1697
Q1617 R1754 Q1781 R1755
R1640 Q1606 R1636 R1650 R1635 R1633 Q1605 R1631 R1632 Q1603
R1639 R1637 Q1604
R1624 R1622 R1688 R1615
D1603 D1602 D1610
Q1616 R1679 R1751 R1675 R1677 Q1613
R1757 R1623 R1689 R1616 R1625
D1608 D1609 D1604 R1641 R1626 R1686 C1625
R1691 R1690 R1629 R1678 R1676
R1728 R1730 R1715 R1731
C1702 R1705 R1716 R1706 R1707 R1704
Q1702 Q1701 Q1703 R1711 R1708 R1713 R1712 R1709 C1703
R1696 R1752 R1672 R1673
Q1611 R1695 R1669 Q1610 R1671
R1714 Q1704 R1727 R1724 Q1710 R1718 R1725 Q1706 R1726 Q1707
R1628 R1627 IC1601 R1630 D1601 R1621
R1617 R1620 D1605 R1618
R1643 R1642
R1720 R1750 R1735 R1734 R1719
D1602 R1663 R1661 R1662
R1700 D1606 Q1601 R1658
R1657 R1656 Q1602
R3202 R3203 D3205 Q3214 R3257 R3258 D3202
R3201 C3202 IC3201 R3208 R3207 D3201
R3235 R3232 Q3213 R3234 R3233
R4711 R4712 C4707 D4704 C4711 R4720 R4708
R4710 R4721 R4714 Q4705 R4713 R4716 R4715
B C E A

SIDE A


Q3213
Q3212 Q3206
Q3013 Q3208 Q3210
Q3005 Q3006
Q3014 Q3301 IC3003
Q1801
Q1802 Q3001 – Q3004
Q1804 Q1805
Q3302 Q3314
IC3301 Q3007
Q3310 IC3002
Q3010
IC3006
Q3008
(ANP1873-B)
R3070
Q3013
R3071
R3042
C3008
R3041
R3052
R3053
Q3005
R3045
Q3006
R3044
C3007
R3021
C3024
R3043
R3039
R3022
C3059
C3057
IC3003
C3045
C3032
R3040
R3072
R3054
R3049
R3048
C3063
IC3002
Q3008
R3050
Q3007
R3055
R3019
R3082
R3080
R3051
R3046
D3005
R3083
C3085
R3018
C3021
R3017
Q3003
R3035
C3055
R3037
R3036
R3016
C3020
R3034
Q3004
R3032
Q3002
Q3001
R3010
R3005
C3005
R3004
C3006
R3085
R3001
D3001
R3028
R3030
R3031
C3058
Q4705
R4718
R4719
R4722
Q4706
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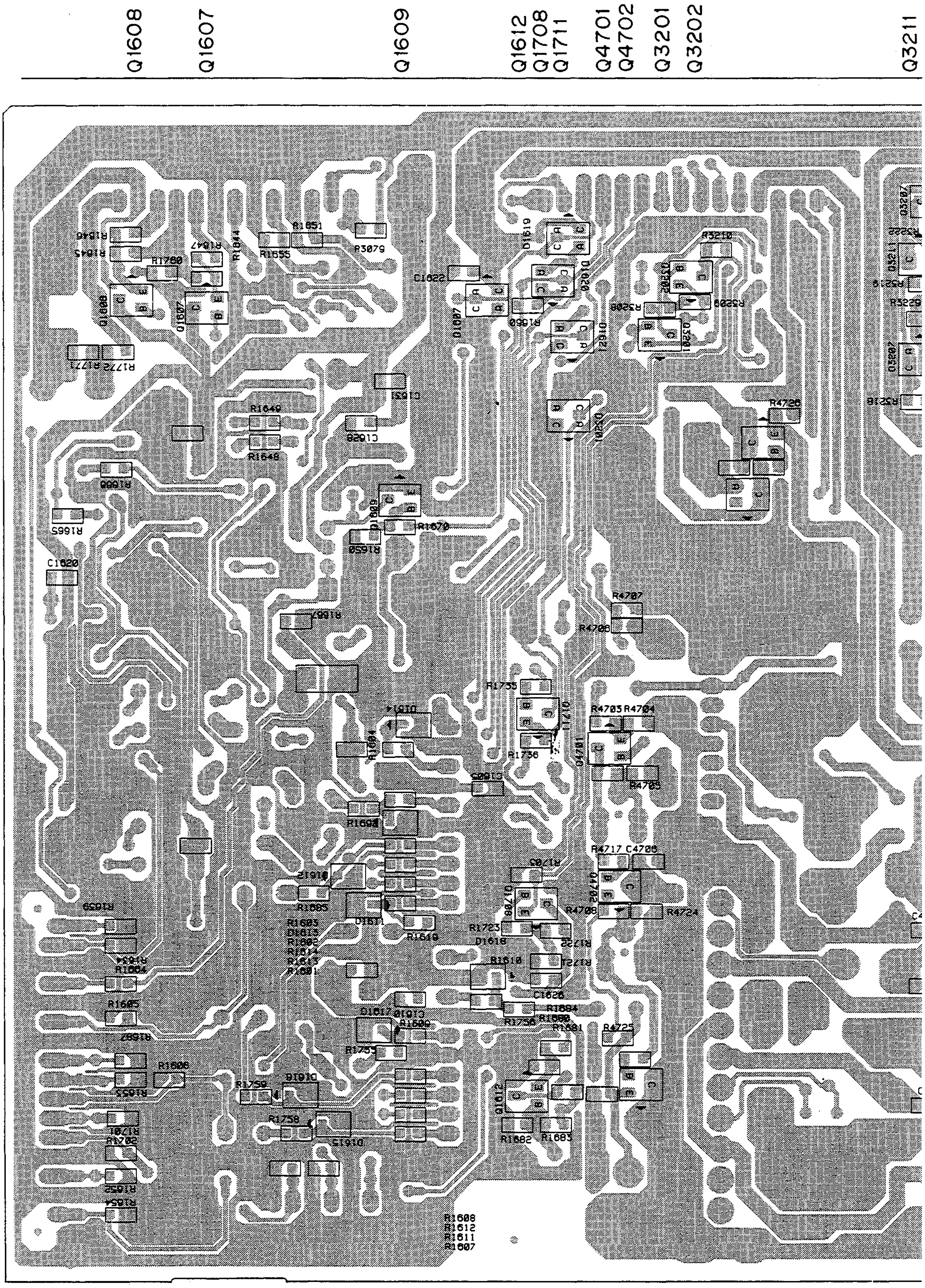
R4711
C4707
D4704
R4709
R4720
R4710
R4721
Q4703
R4714
R4715
Q3210
Q3208
R3227
C3208
R3239
R3241
R3223
R3301
R3302
Q3301
R3074
Q3014
R1803
R1804
R3240
Q1802
R1800
Q1801
C1806
R1801
R3321
R3322
Q3310
R3323
Q3302
C3303
R3309
R3342
R3328
R3341
C3317
Q3314
Q1805
R3344
R3345
R1824
C3312
C3313
C3314
D3302
R3315
D1802
R1827
R1823
R1825
Q1804
R1822
R1821
D3007
C1808
R3205
Q3206
R3221
R3208
D3206
R3235
R3232
R3236
Q3212
R3234
R3233
R3231

## B AV I/O ASSY


Q1608
Q1607
Q1609
Q1612
Q1708
Q1711
Q4701
Q4702
Q3201
Q3202
Q3211
R1646
R1645
R1760
R1647
R1644
R1655
R1651
R3079
C1622
D1607
D1619
D1620
R3210
Q3202
R3208
R3209
Q3201
R3222
Q3211
R3219
R3229
Q3207
R3218
R1772
R1771
Q1608
Q1607
R1660
Q1621
C1621
R1649
R1648
C1628
R1668
Q1620
R4726
R1665
Q1609
D1609
R1670
R1650
C1620
R1667
R4707
R4706
R1735
D1614
Q1711
R4703
R4704
R1604
Q4701
R1736
R4705
C1605
R1698
R4717
C4706
R1703
D1610
Q1708
Q4702
R4708
R4724
R1659
R1685
D1611
R1723
R1605
D1613
R1602
R1614
R1613
R1601
R1649
D1618
R1722
R1610
R1721
C1626
R1694
R1603
R1605
D1617
C1610
R1606
R1738
R1689
R1691
R4725
R1602
R1606
R1753
R1759
D1616
R1655
Q1612
R1701
R1702
R1758
C1910
R1682
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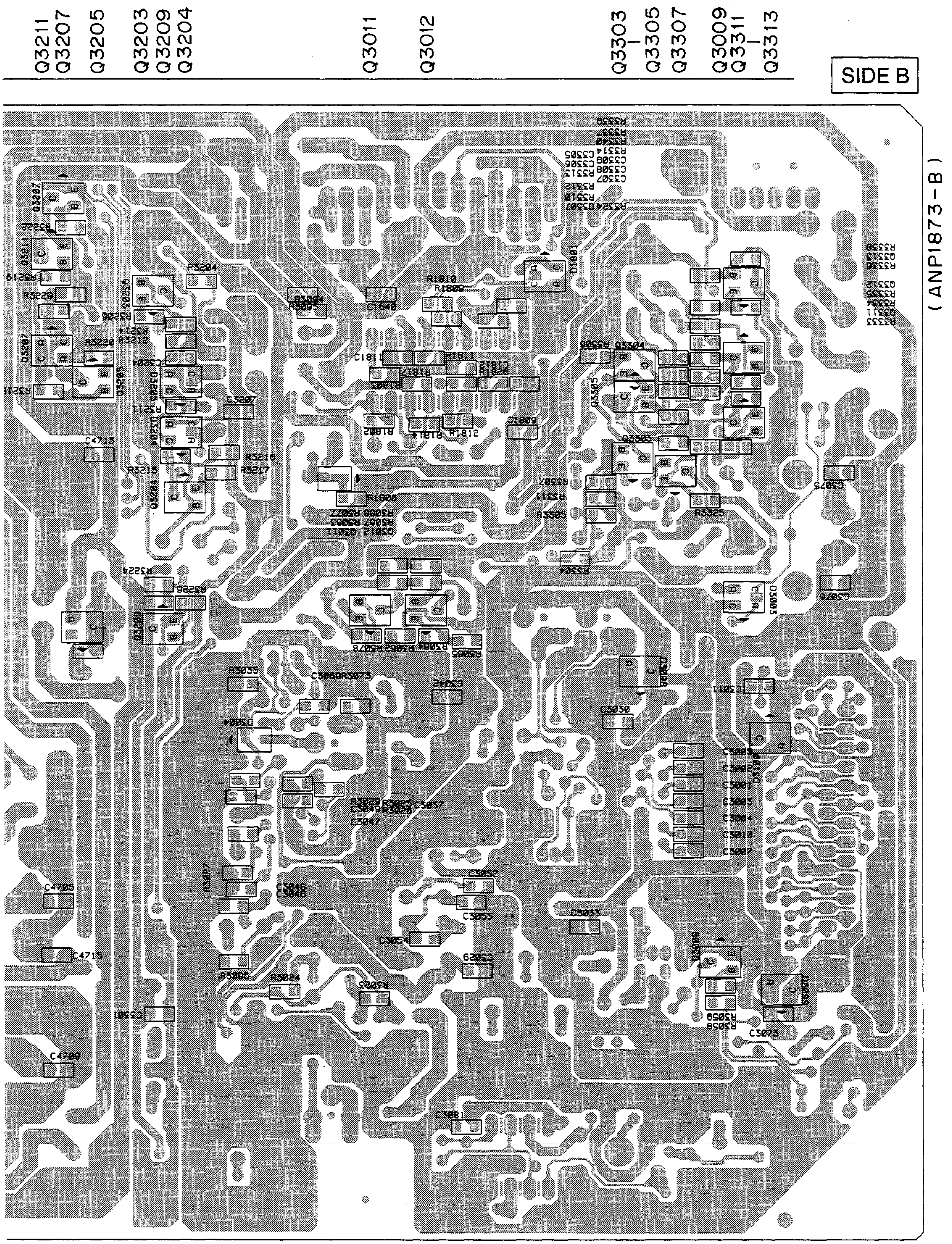
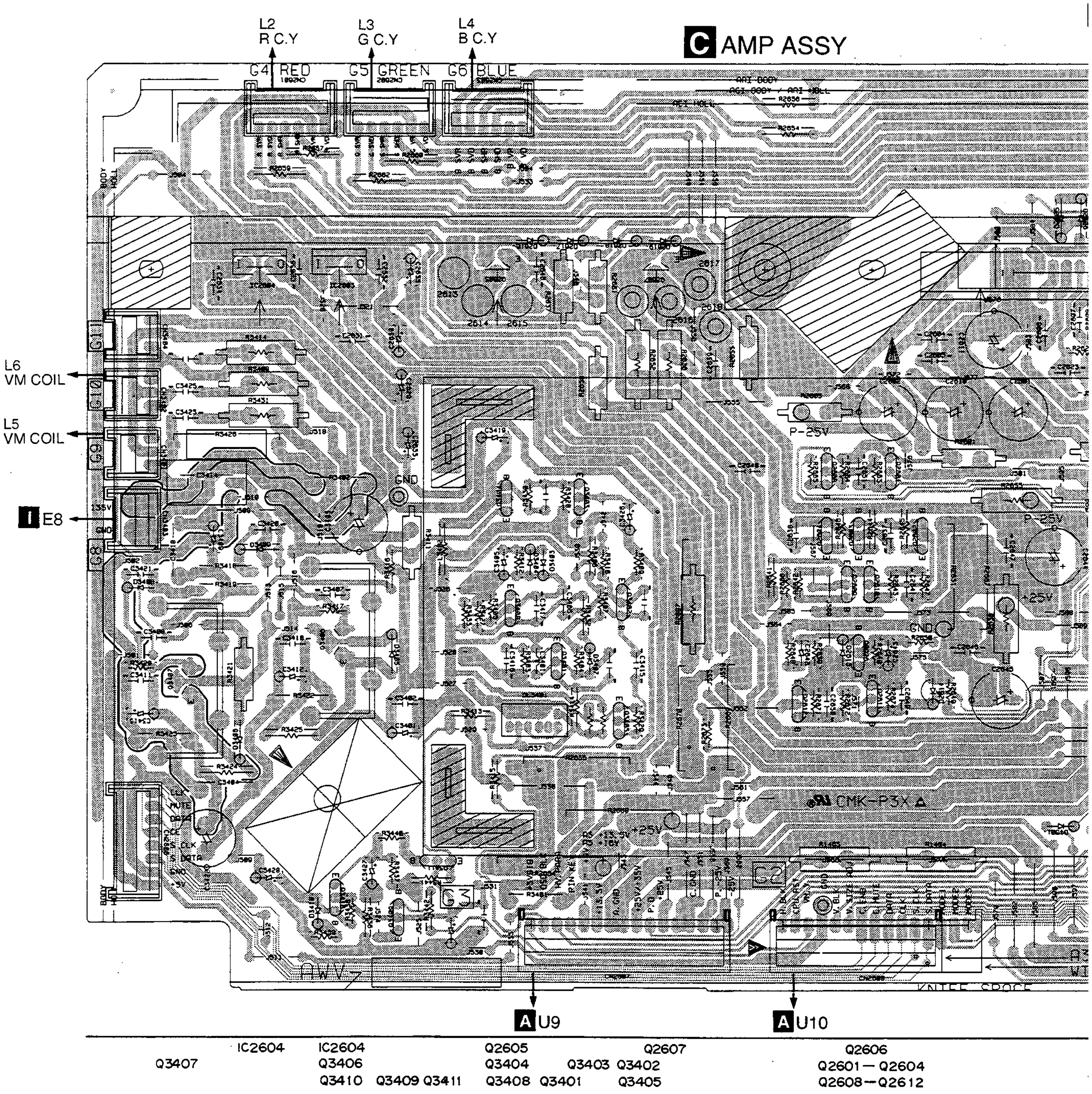
R1652
R1654
R1608
R1612
R1611
R1607

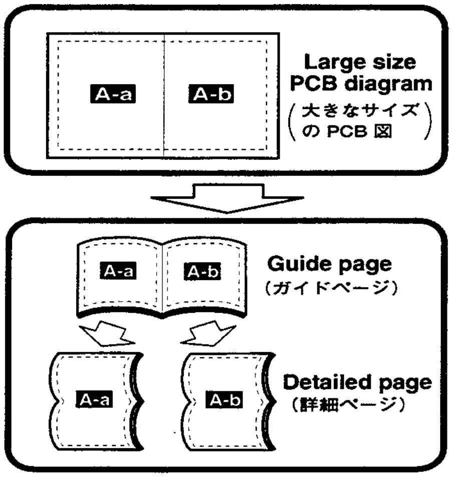

Q3211
Q3207
Q3205
Q3203
Q3209
Q3204
Q3011
Q3012
Q3303
Q3305
Q3307
Q3009
Q3311
Q3313
SIDE B
( ANP1873 – B )
R3204
R3229
R3220
R3212
R3211
R3215
R3216
R3217
R3224
R3226
C3207
C4713
C4705
C4715
C4700
C3201
R3004
R3005
C1640
R1810
R1809
C1811
R1811
R1812
R1818
R1802
C1809
R1800
D1801
R3504
R3505
R3511
R3507
R3525
Q3303
Q3305
C3075
C3076
D3003
R3035
C3068
R3073
C3042
D3004
C3030
C3011
C3003
C3002
C3001
C3005
C3004
C3018
C3007
R3029
C3037
C3047
R3007
C3048
C3052
C3055
C3054
C3033
C3053
R3006
R3024
R3025
R3059
R3058
C3073
C3081

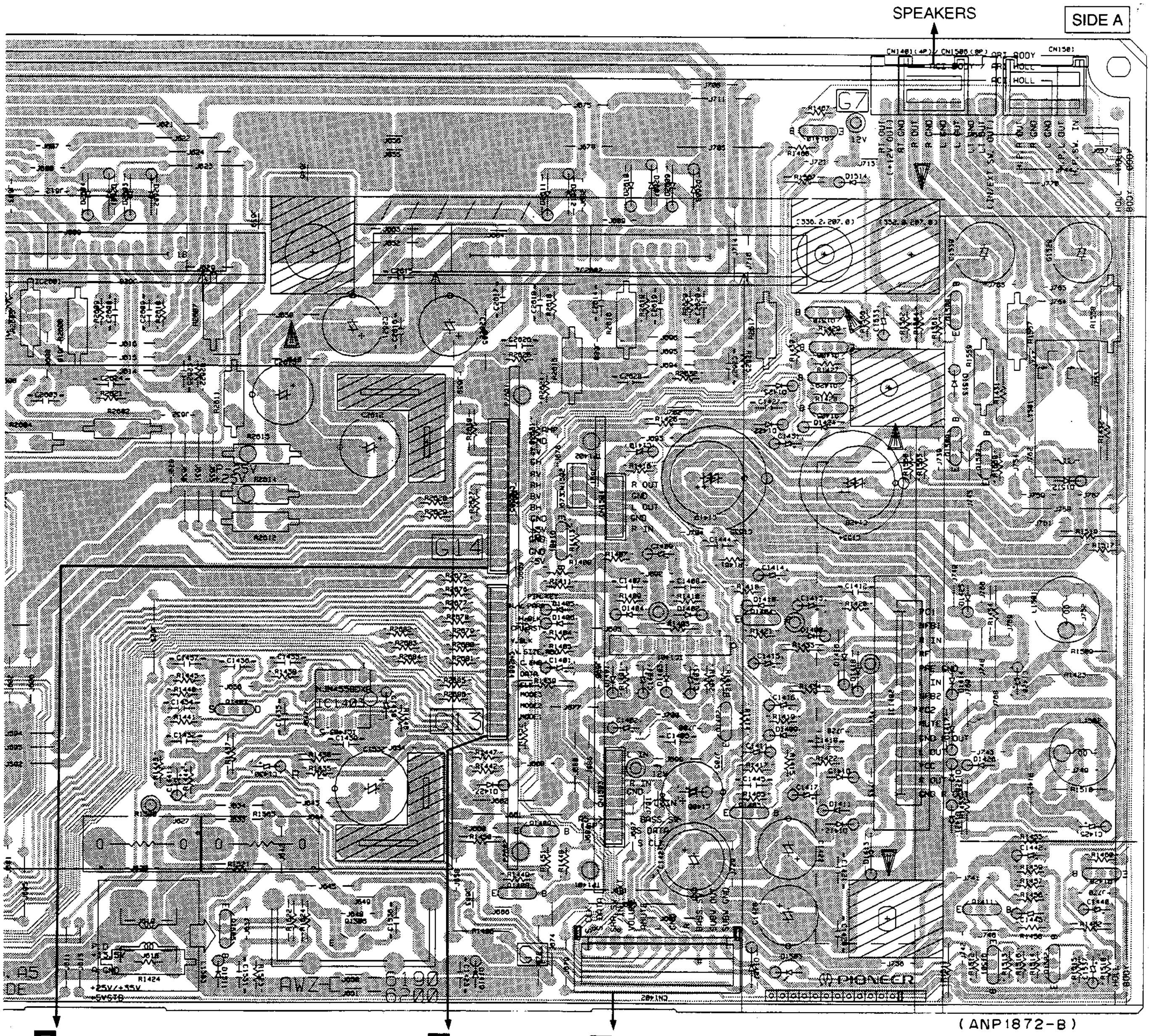
## 4.3 AMP ASSY

### (GUIDE PAGE)

☐ : HIGH VOLTAGE GENERATION POINT
(EXCEPTIG THE CHARGED SECTION)


L2
R C.Y
L3
G C.Y
L4
B C.Y
C AMP ASSY
G4 RED
G5 GREEN
G6 BLUE
L6
VM COIL
L5
VM COIL
I E8
P-25V
GND
+25V
CMK-P3X
AWV
A U9
A U10
IC2604
IC2604
Q2605
Q2607
Q2606
Q3407
Q3406
Q3404
Q3403 Q3402
Q2601 — Q2604
Q3410
Q3409 Q3411
Q3408 Q3401
Q3405
Q2608 — Q2612


A-a
A-b
Large size PCB diagram
(大きなサイズのPCB図)
Guide page
(ガイドページ)
Detailed page
(詳細ページ)


SPEAKERS
SIDE A
G7
G14
G13
PIONEER
AWZ-C
(ANP1872-B)

**E** C4

**E** C3

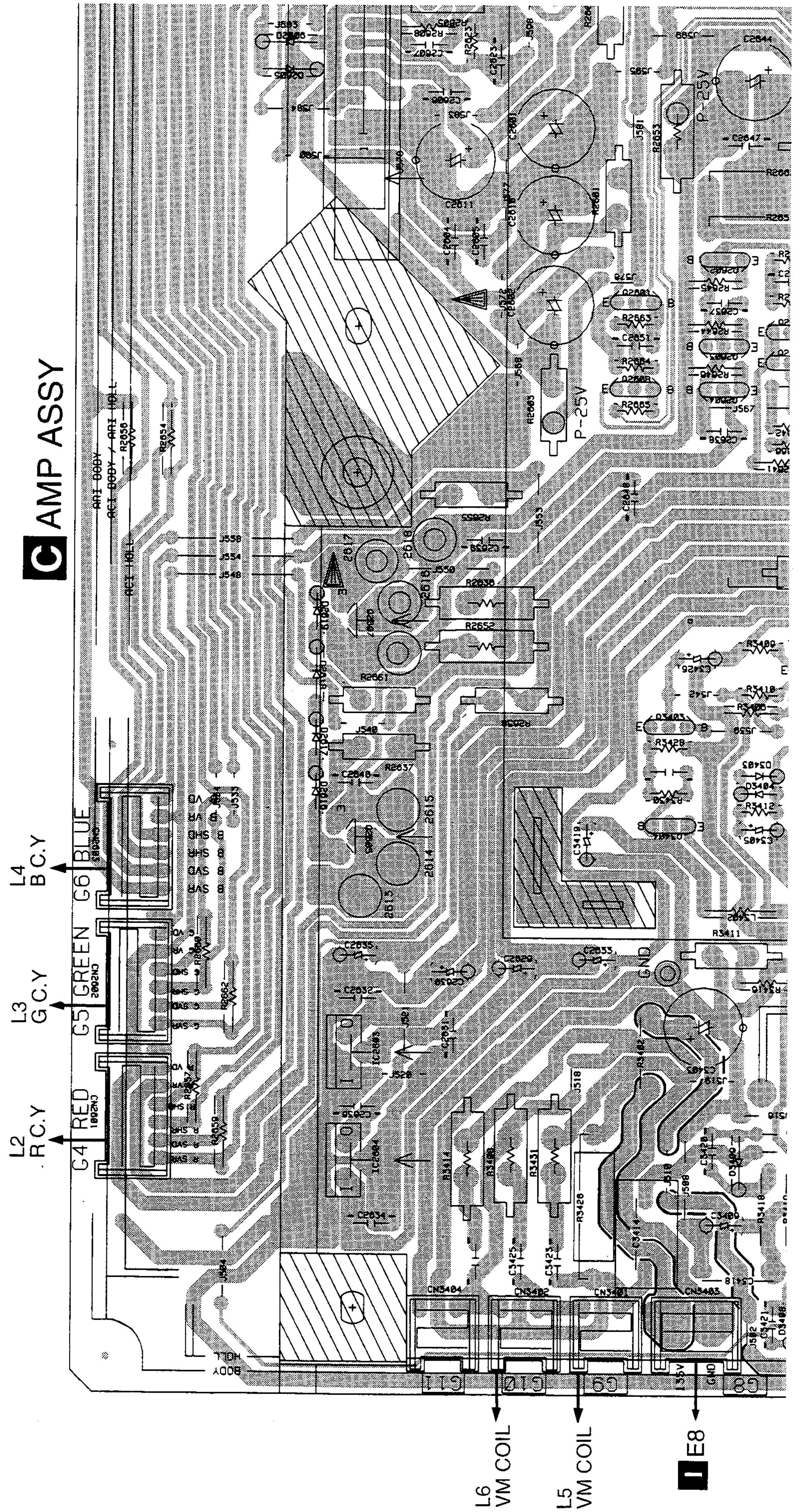
**A** U11

IC2601
Q1407
Q1505
IC1403
Q1506
IC2602
Q1401
Q1408 Q1409
IC1401
Q1402–Q1404 Q1510
Q1406 Q1429 Q1405
Q1410
IC1402
Q1507–Q1509
Q1411
Q1501
Q1502
Q1428

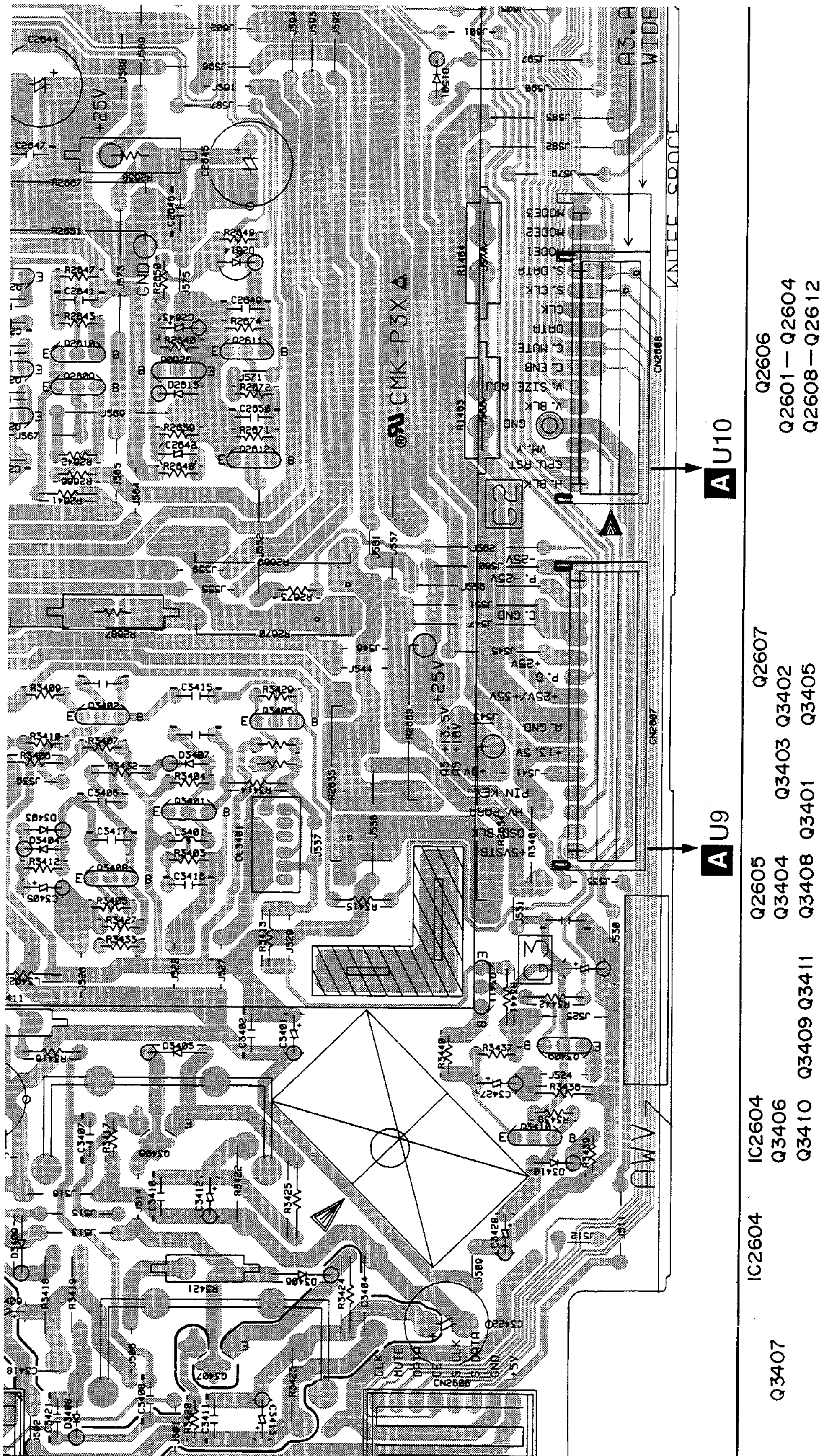
**C-a C-b**

□ : HIGH VOLTAGE GENERATION POINT
(EXCEPTIG THE CHARGED SECTION)

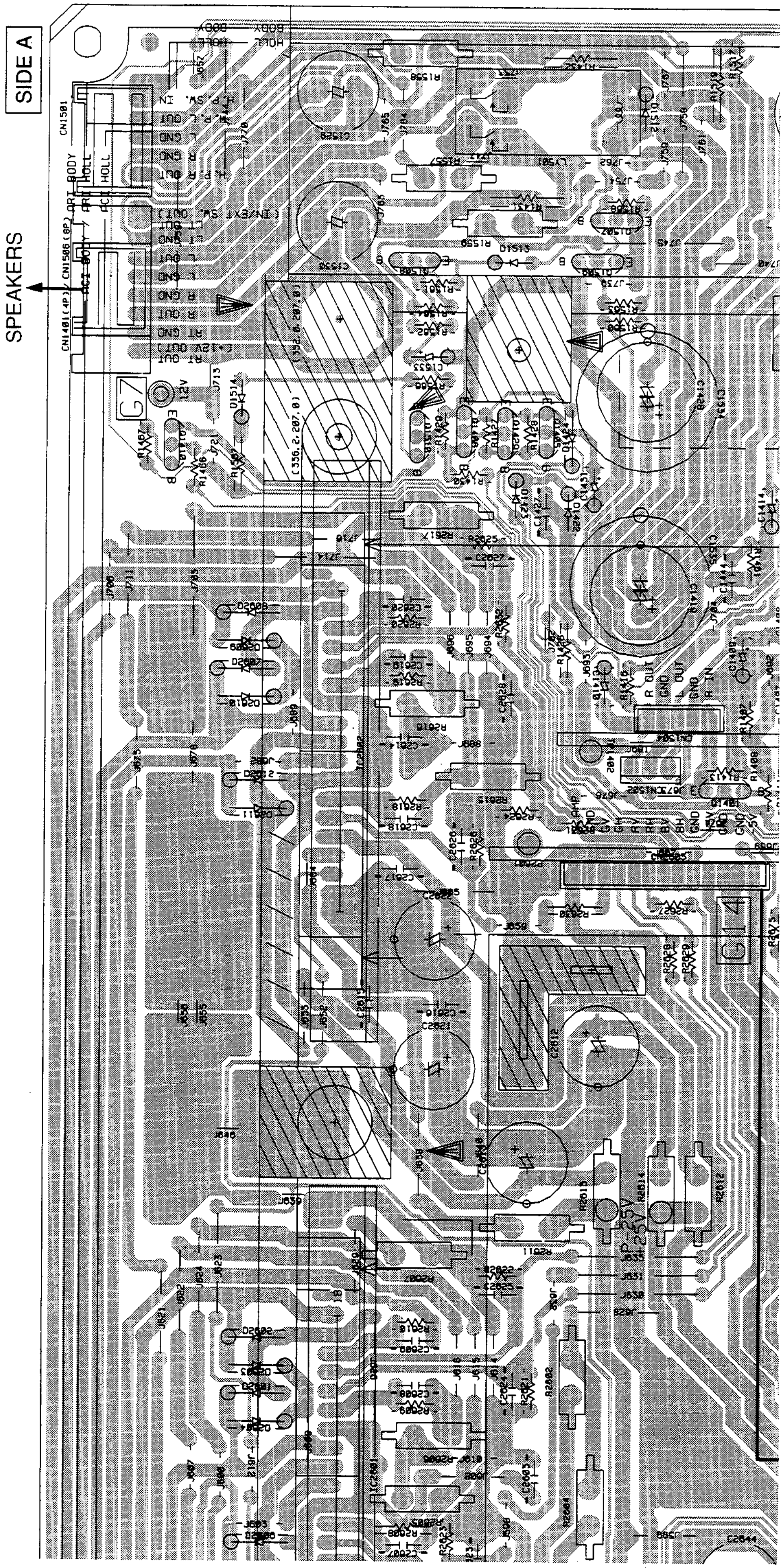
## C AMP ASSY


L2
R C.Y
L3
G C.Y
L4
B C.Y
G4 RED
G5 GREEN
G6 BLUE
G11
G10
G9
G8
P-25V
GND
L6
VM COIL
L5
VM COIL
I E8

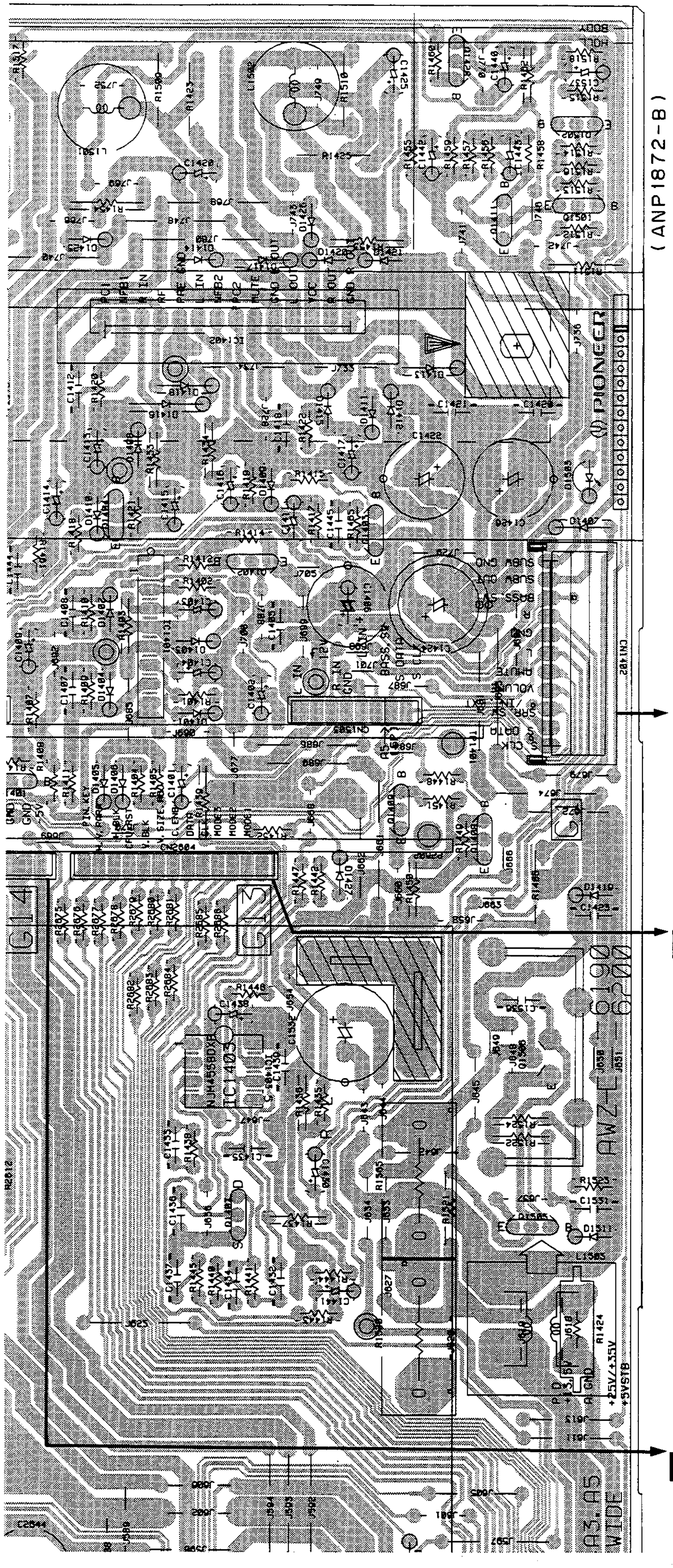
**C-a C-b**


CMK-P3X
A U10
A U9
+25V
+13.5V
H. BLK
CPU RST
VM. V
GND
V. BLK
V. SIZE ADJ
C. ENB
C. MUTE
DATA
CLK
S. CLK
S. DATA
MODE1
MODE2
MODE3
CN2608
CN2607
CN2605
-25V
P. -25V
C. GND
+25V
P. G
+25V/+55V
A. GND
+13. 5V
PIN KEY
HV. POAQ
OSD BLK
+5V/STB
KNIFE SPACE
BODY
Q2606
Q2601 — Q2604
Q2608 — Q2612
Q2607
Q3402
Q3405
Q3403
Q3401
Q2605
Q3404
Q3408
Q3411
Q3409
IC2604
Q3406
Q3410
IC2604
Q3407

**C-a C-b**


SIDE A
SPEAKERS
CN1501
CN1401(4P) / CN1506(8P)
ORT BODY
ORT HOLL
BODY
HOLL
P.SW. IN
H.P.R.L OUT
L GND
R GND
H.P.R OUT
(IN/EXT SW. OUT)
LT OUT
LT GND
L OUT
L GND
R GND
R OUT
RT GND
(+12V OUT)
RT OUT
12V
G7
G14
R OUT
GND
OUT
L GND
R IN
(336.2, 207.0)
(352.0, 207.0)

☐ : HIGH VOLTAGE GENERATION POINT
(EXCEPTIG THE CHARGED SECTION)

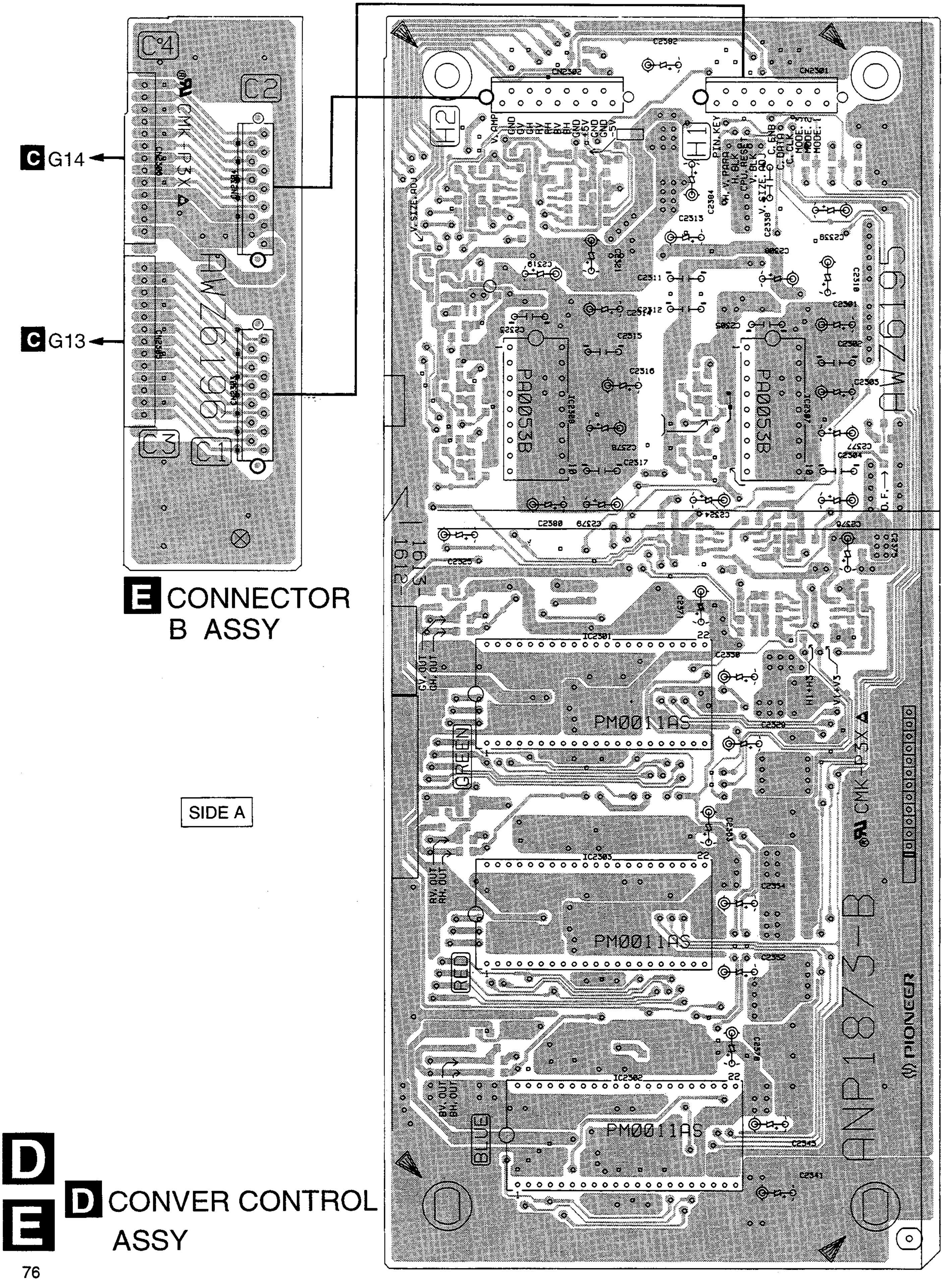

(ANP1872-B)
A U11
E C3
E C4
IC1402
IC1401
IC1403
NJM4558DX
PIONEER
AWZ-C 6190
6500
A3, A5
WIDE
CN1503
CN2604
+25V/+35V
+5VSTB

IC2601 IC2602 Q1410 Q1507–Q1509

Q1407 IC1403 Q1401 IC1401 Q1402–Q1404 Q1510 IC1402 Q1411 Q1428

Q1505 Q1506 Q1408 Q1409 Q1406 Q1429 Q1405 Q1501 Q1502

## 4.4 CONVER CONTROL AND CONNECTOR B ASSEMBLIES


C4
C2
C3
C1
CMK-P3X
AWZ6196
C G14
C G13
CN2302
CN2301
H2
H1
V.AMP
GND
+5V
V.SIZE.ADJ
P.IN.KEY
H.BLK
CPU.RESET
V.BLK
C.ENB
C.DATA
C.CLK
MODE
PA0053B
PA0053B
AWZ6195
IC2301
IC2303
IC2302
PM0011AS
PM0011AS
PM0011AS
GV.OUT
GH.OUT
RV.OUT
RH.OUT
BV.OUT
BH.OUT
GREEN
RED
BLUE
H1+H3
V1+V3
CMK-P3X
ANP1873-B
PIONEER
1613-
1613-
C2382
C2313
C2319
C2311
C2312
C2315
C2316
C2317
C2380
C2379
C2325
C2350
C2354
C2352
C2345
C2341
C2301
C2302
C2303
C2304
C2374
C2376
22
1
D.F.

**E** CONNECTOR B ASSY

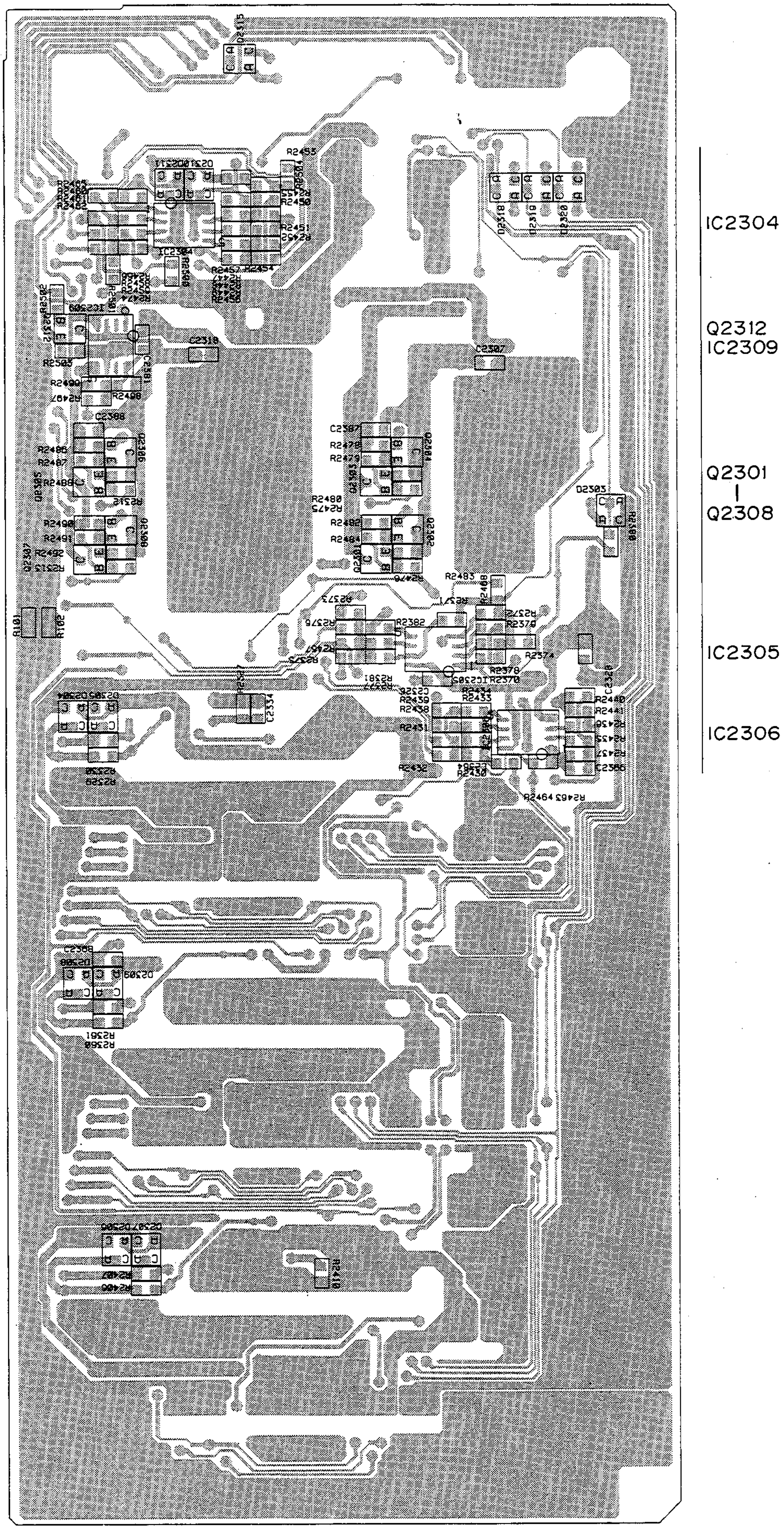
SIDE A

**D** CONVER CONTROL ASSY

D
E

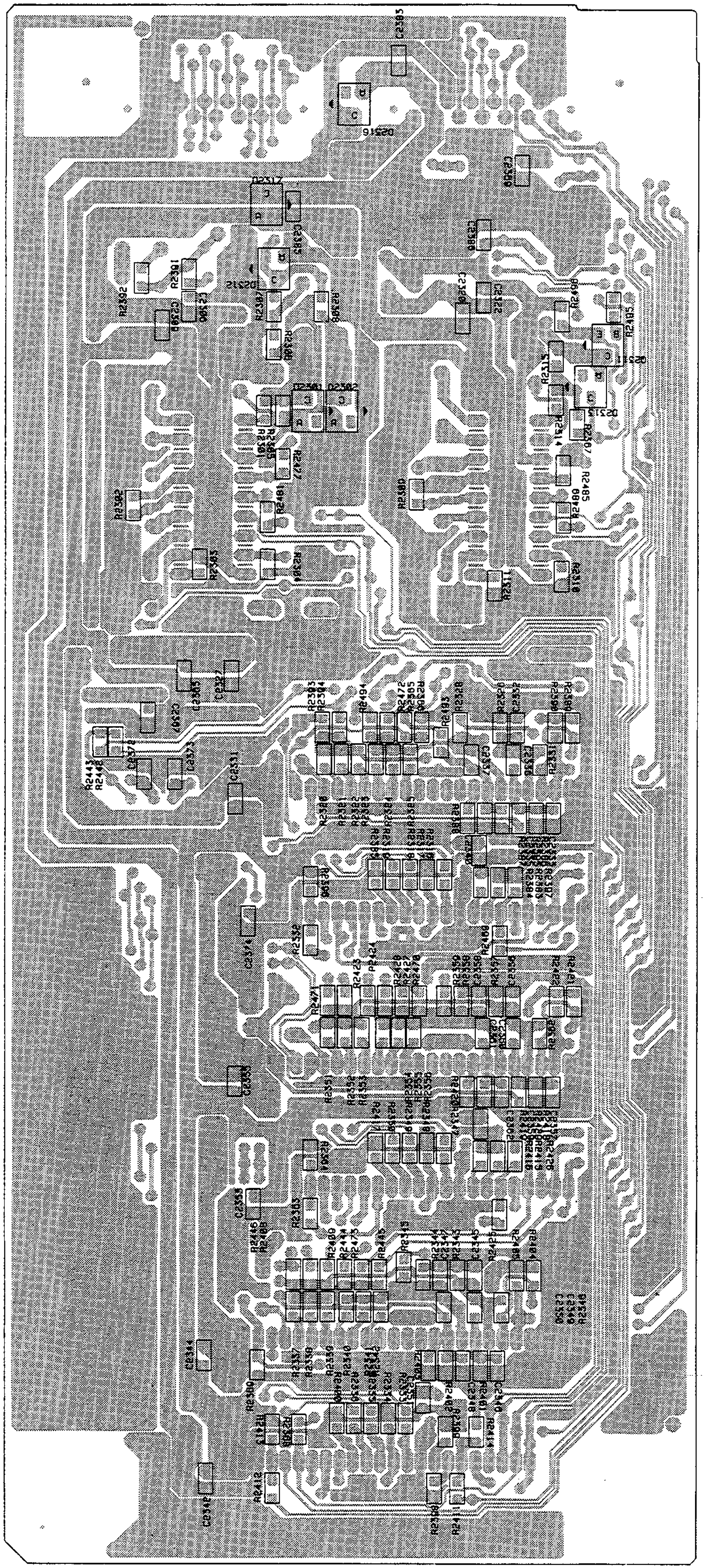
# D CONVER CONTROL ASSY

SIDE A


IC2304
Q2312
IC2309
Q2301
Q2308
IC2305
IC2306
D2315
R2453
IC2304
R2451
R2454
R2452
IC2309
Q2312
R2503
C2310
C2381
R2499
R2497
R2498
C2308
Q2306
R2486
R2487
R2488
D2305
R2516
R2490
R2491
R2492
Q2308
Q2307
R2515
R101
R102
C2387
R2478
R2479
Q2304
Q2303
R2480
R2475
R2482
R2484
Q2302
Q2301
R2476
C2307
D2303
R2508
R2483
R2468
R2373
R2371
R2376
R2382
R2372
R2379
R2377
R2374
R2375
R2378
R2370
IC2305
R2381
R2547
C2334
C2328
D2304
D2305
R2530
R2529
R2433
R2438
R2431
R2432
R2430
R2440
R2441
R2436
R2435
R2437
C2386
IC2306
R2464
R2463
C2398
D2308
D2309
R2560
R2561
D2307
D2306
R2407
R2406
R2410
(ANP1873-B)

# D CONVER CONTROL ASSY

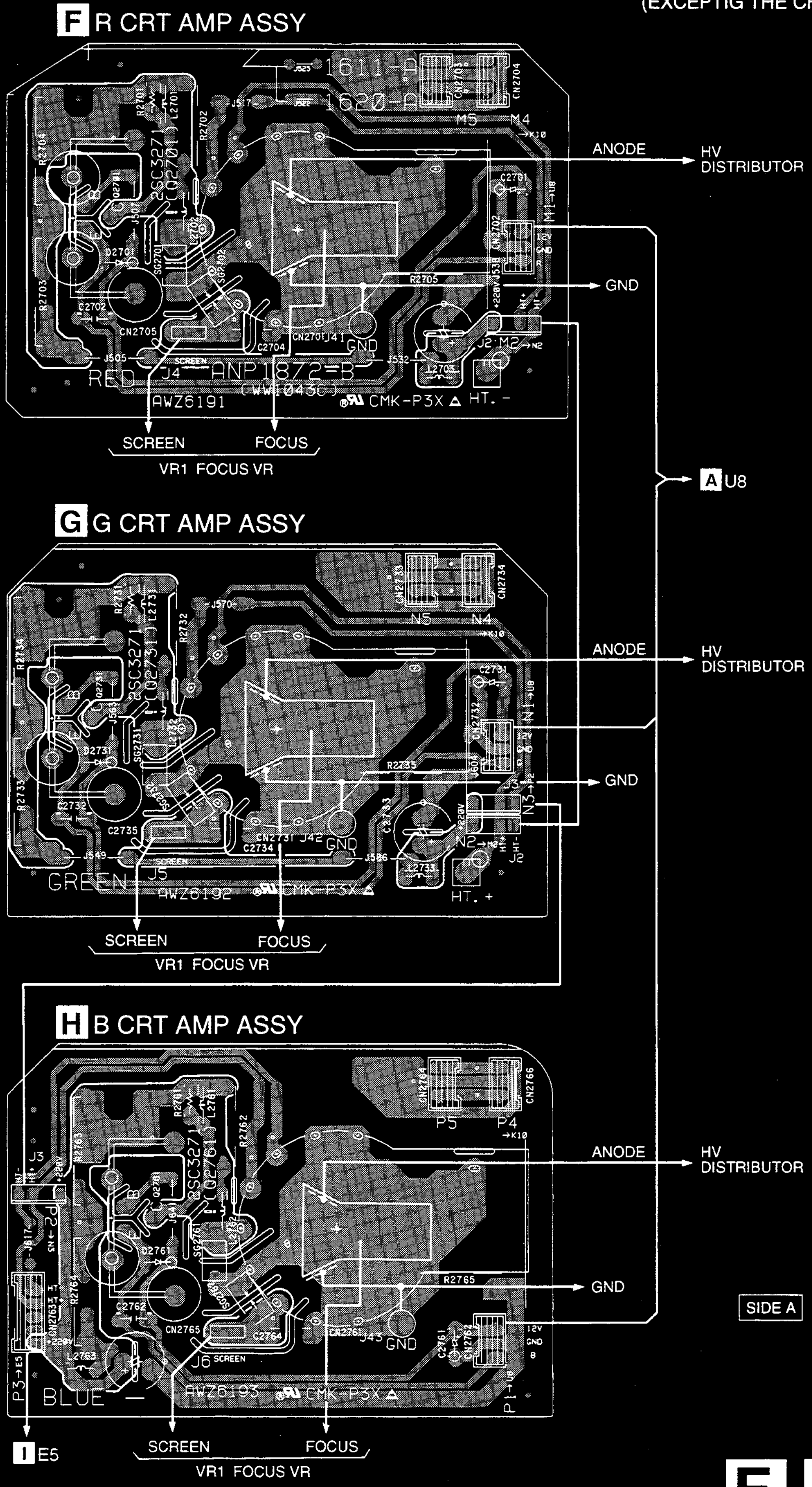
SIDE B


D2516
D2517
D2515
R2391
R2392
R2302
R2380
R2311
R2310
R2315
R2490
R2495
C2374
C2355
C2344
C2342
R2412

( ANP1873－B )

## 4.5 R,G AND B CRT AMP ASSEMBLIES

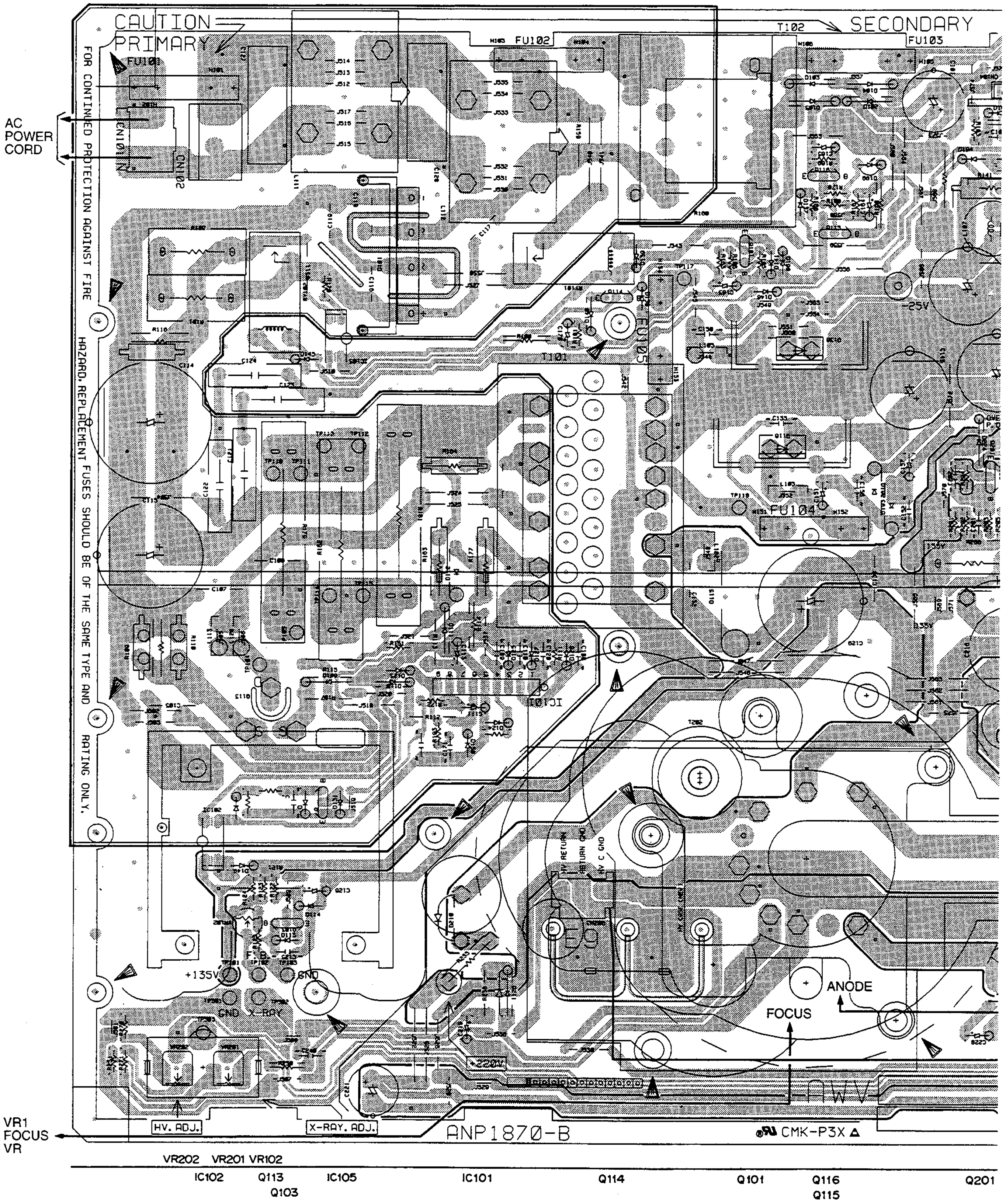
□ : HIGH VOLTAGE GENERATION POINT
(EXCEPTIG THE CHARGED SECTION)


F R CRT AMP ASSY
1611-A
1620-A
CN2703
CN2704
M5
M4
R2701
L2701
R2702
2SC3271
(Q2701)
R2704
Q2701
J507
D2701
SG2701
L2702
SG2702
R2703
C2702
CN2705
J505
SCREEN
J4
RED
ANP1872-B
(WW1043C)
AWZ6191
CMK-P3X
HT. -
C2704
CN2701
J41
GND
J532
L2703
J2
M2
R2705
C2701
CN2702
M1→U8
ANODE
HV DISTRIBUTOR
GND
SCREEN
FOCUS
VR1 FOCUS VR
A U8
G G CRT AMP ASSY
CN2733
CN2734
N5
N4
J570
R2731
L2731
R2732
2SC3271
(Q2731)
R2734
Q2731
D2731
SG2731
R2733
C2732
C2735
J549
SCREEN
GREEN
J5
AWZ6192
CMK-P3X
HT. +
CN2731
J42
C2734
GND
J586
L2733
C2733
R2735
C2731
CN2732
N1→U8
N2
N3
J2
J3
ANODE
HV DISTRIBUTOR
GND
SCREEN
FOCUS
VR1 FOCUS VR
H B CRT AMP ASSY
CN2764
CN2766
P5
P4
R2761
L2761
R2762
2SC3271
(Q2761)
R2763
Q2761
D2761
SG2761
L2762
J3
P2
CN2763
R2764
C2762
CN2765
L2763
J6
SCREEN
C2764
CN2761
J43
GND
C2761
CN2762
R2765
BLUE
AWZ6193
CMK-P3X
P3→E5
P1→U8
ANODE
HV DISTRIBUTOR
GND
SIDE A
I E5
SCREEN
FOCUS
VR1 FOCUS VR

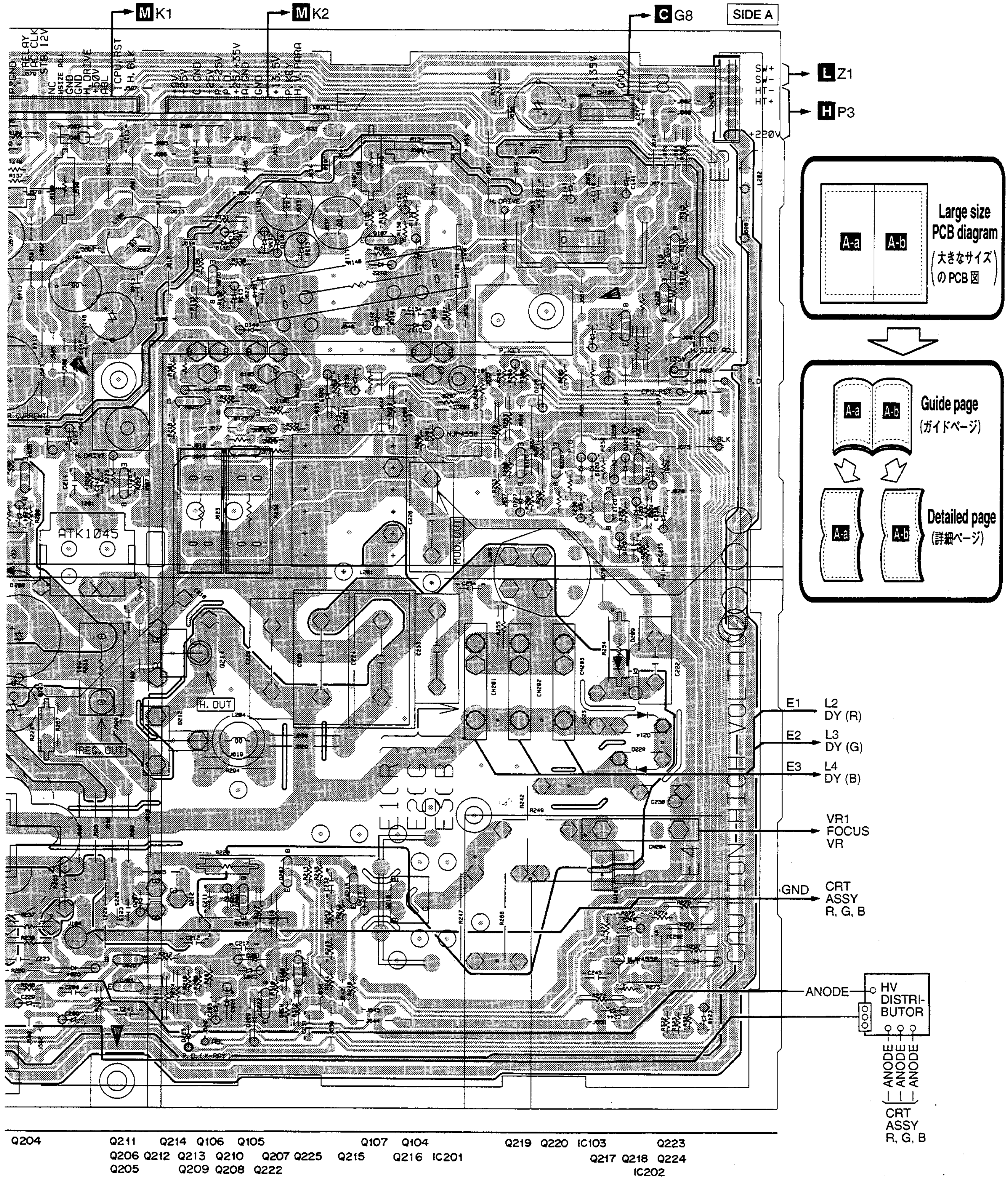
## 4.6 POWER SUPPLY SERVICE ASSY
(GUIDE PAGE)

**I** POWER SUPPLY SERVICE ASSY

▭ : CHARGED SECTION


AC
POWER
CORD
CAUTION
PRIMARY
SECONDARY
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATING ONLY.
FU101
CN101
CN102
FU102
T102
FU103
T101
FU105
25V
FU104
135V
IC101
IC102
HV RETURN
RETURN GND
HV C GND
+135V
GND
X-RAY
ANODE
FOCUS
+220V
HV. ADJ.
X-RAY. ADJ.
ANP1870-B
CMK-P3X
VR1
FOCUS
VR
VR202
VR201
VR102
IC102
Q113
Q103
IC105
IC101
Q114
Q101
Q116
Q115
Q201

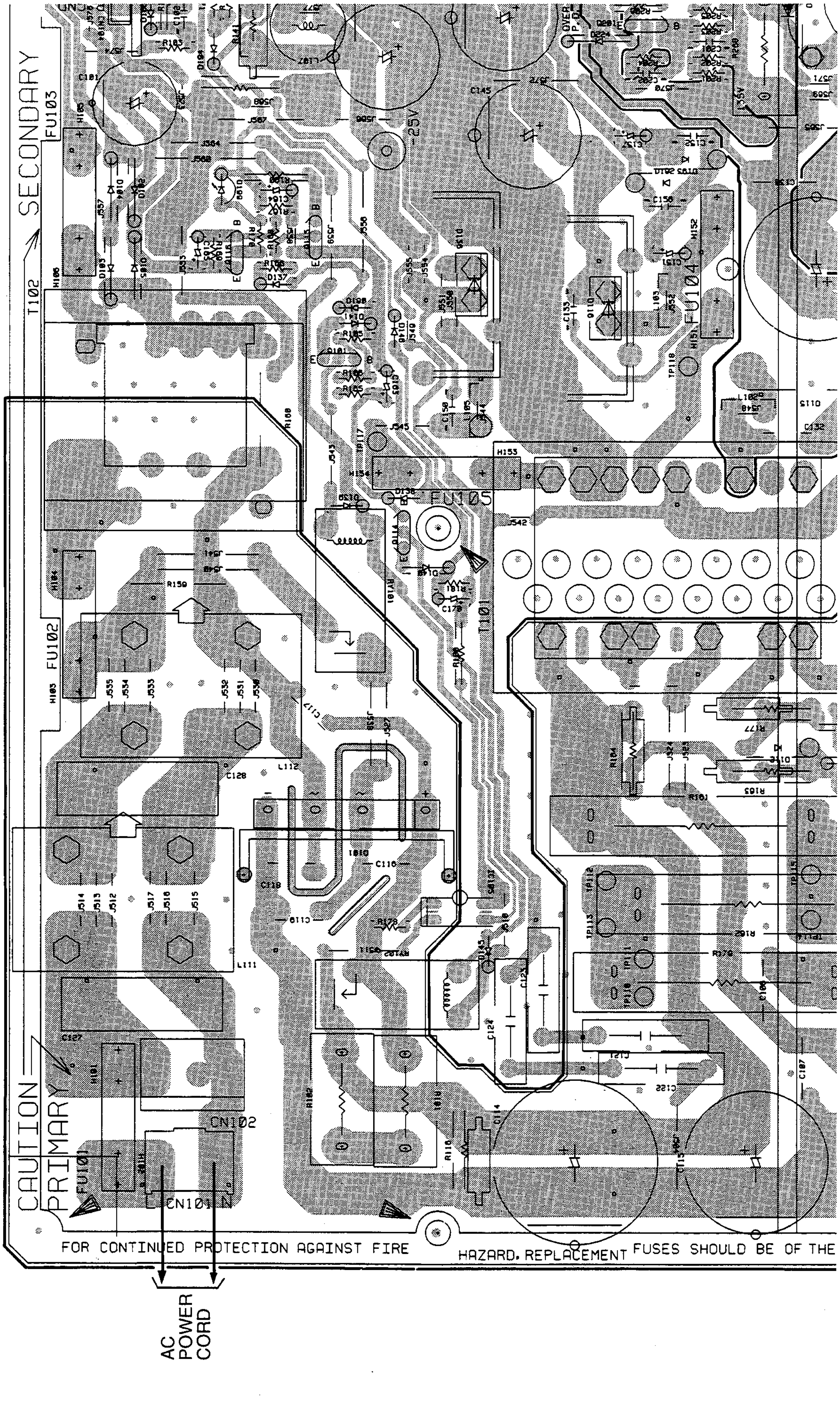
▭ : HIGH VOLTAGE GENERATION POINT
(EXCEPTIG THE CHARGED SECTION)

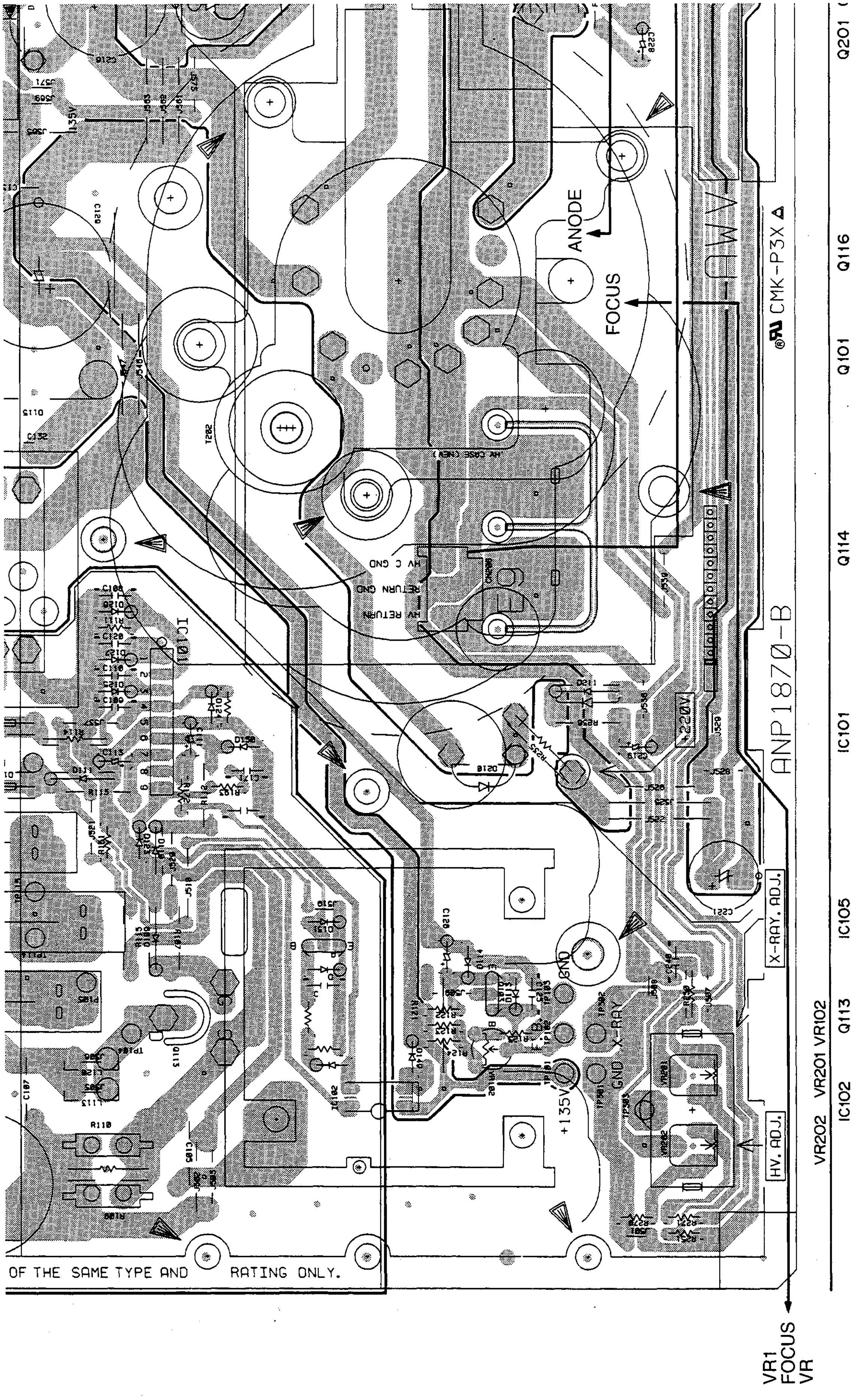

M K1
M K2
C G8
SIDE A
P.GND
RELAY
AC.CLK
STB.12V
NC
HSIZE ADJ
GND
GND
H.DRIVE
+50V
ABL
CPU RST
H.BLK
+9V
+35V
C.GND
+25V
P.+25V
P.D/+35V
A.GND
GND
+15V
P.KEY
H.V.PARA
+135V
GND
SW+
SW-
HT-
HT+
+220V
L Z1
H P3
Large size PCB diagram
(大きなサイズのPCB図)
A-a
A-b
Guide page
(ガイドページ)
Detailed page
(詳細ページ)
H.DRIVE
P.KEY
H.SIZE ADJ
CPU RST
P.D
H.BLK
ATK1045
R.CURRENT
H.DRIVE
MOD.OUT
H.OUT
REG.OUT
P.D.(X-RAY)
ABL
E1
E2
E3
L2 DY (R)
L3 DY (G)
L4 DY (B)
VR1 FOCUS VR
GND
CRT ASSY R, G, B
ANODE
HV DISTRI-BUTOR
ANODE
ANODE
ANODE
CRT ASSY R, G, B
Q204
Q211
Q214
Q106
Q105
Q107
Q104
Q219
Q220
IC103
Q223
Q206
Q212
Q213
Q210
Q207
Q225
Q215
Q216
IC201
Q217
Q218
Q224
Q205
Q209
Q208
Q222
IC202

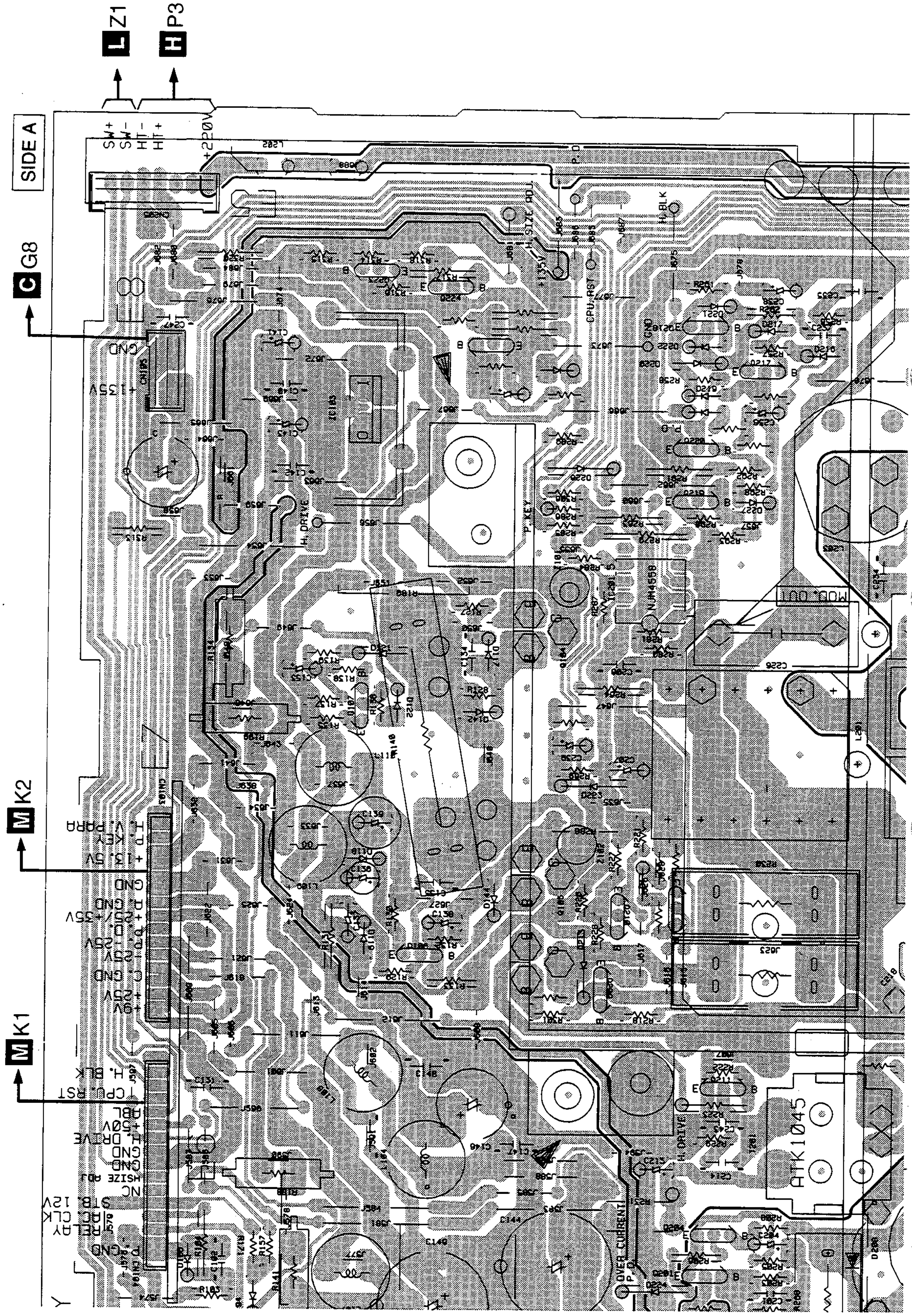
# I POWER SUPPLY SERVICE ASSY

▨ : CHARGED SECTION

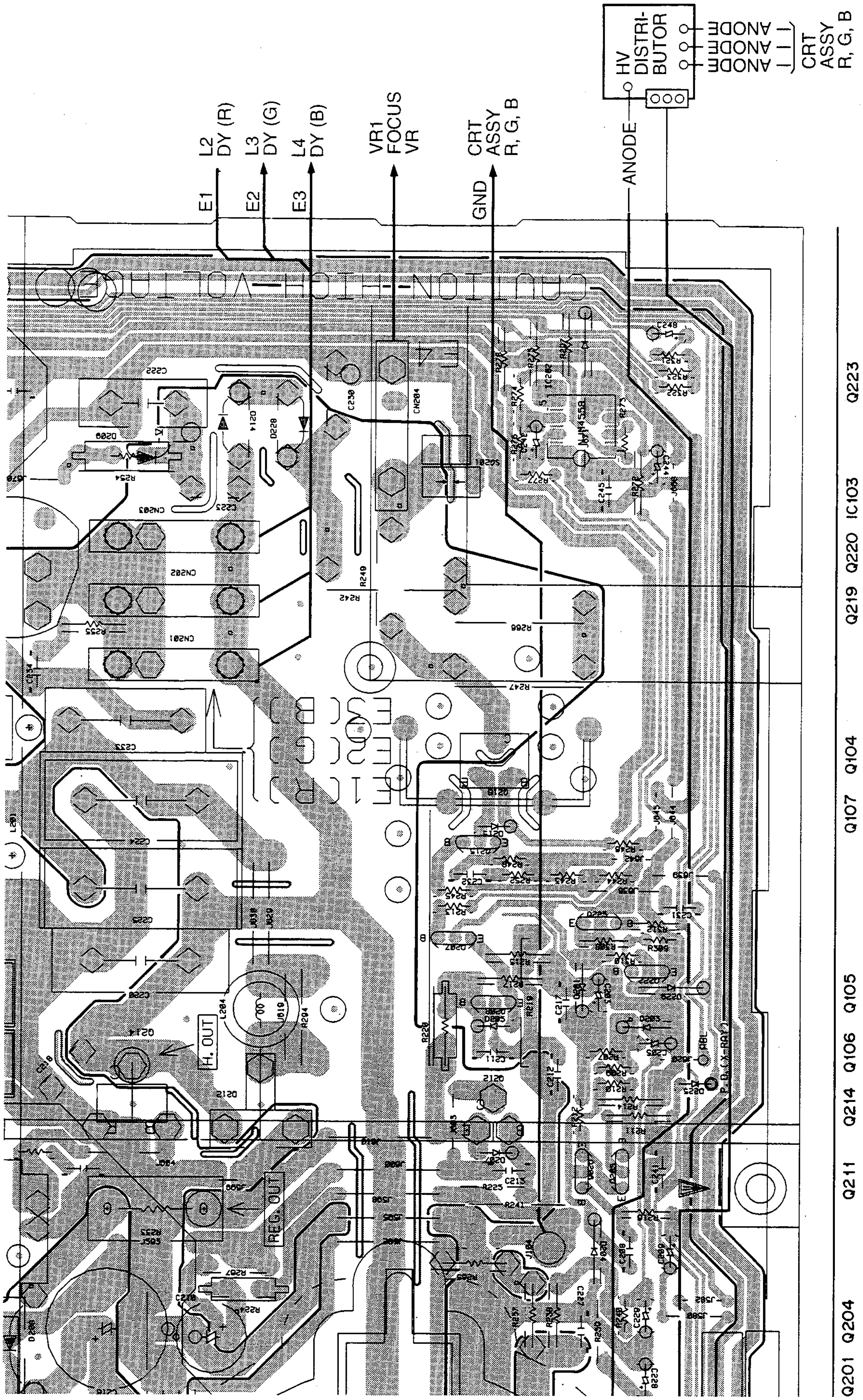
□ : HIGH VOLTAGE GENERATION POINT
(EXCEPTIG THE CHARGED SECTION)


CAUTION
PRIMARY
SECONDARY
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD. REPLACEMENT FUSES SHOULD BE OF THE
AC POWER CORD
FU101
FU102
FU103
FU104
FU105
CN101
CN102
T101
T102
-25V
OVER P.D.
L111
L112
C127
C128
H101
H103
H104
H106
H151
H152
H153
H154
R159
R160
R162
R163
R177
R179
Q114
Q115

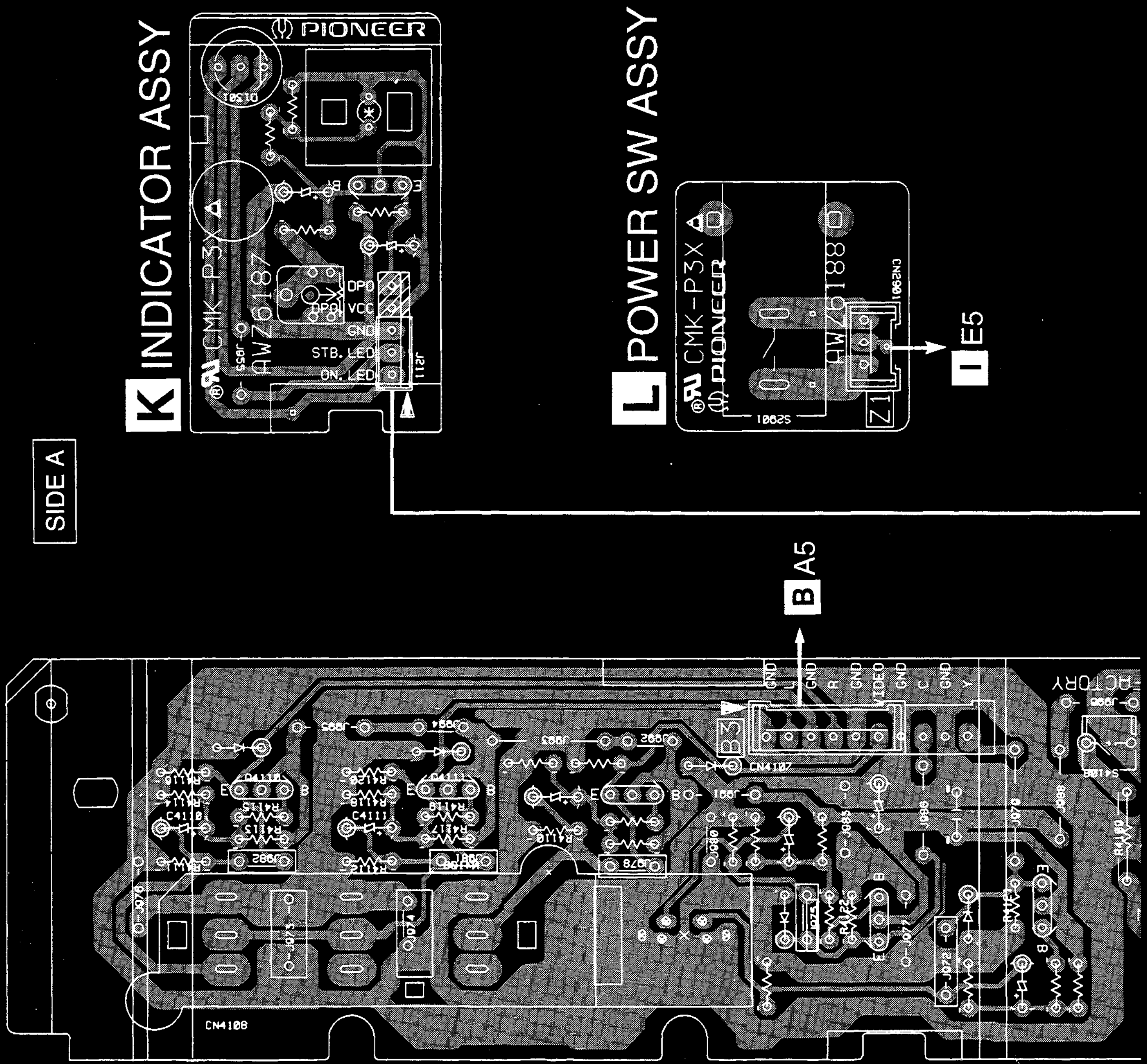

ANODE
FOCUS
CMK-P3X
ANP1870-B
+220V
X-RAY. ADJ.
HV. ADJ.
+135V
GND
X-RAY
GND
HV CASE (GND)
HV C GND
RETURN GND
HV RETURN
T202
IC101
135V
OF THE SAME TYPE AND RATING ONLY.
Q201
Q116
Q115
Q101
Q114
IC101
IC105
Q113
Q103
IC102
VR202
VR201
VR102
VR1
FOCUS
VR

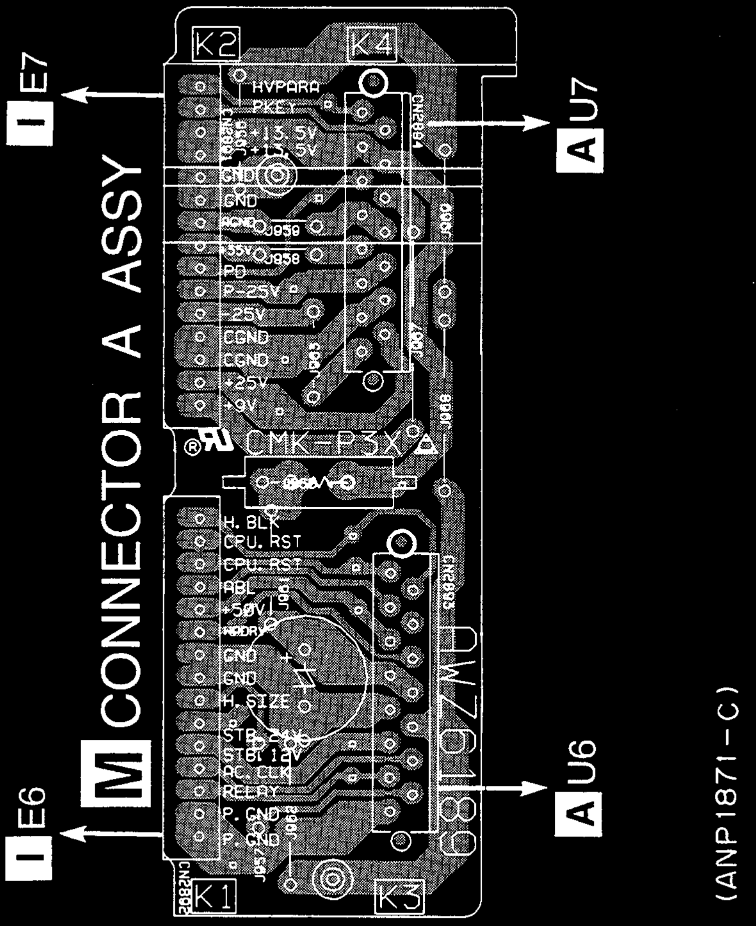

SIDE A
L Z1
H P3
SW+
SW-
HT-
HT+
+220V
C G8
GND
+135V
M K2
H. V. PARA
P. KEY
+13.5V
GND
P. GND
+25/+35V
P. D
P. -25V
C. GND
+25V
+9V
M K1
H. BLK
CPU. RST
ABL
+50V
H. DRIVE
GND
GND
HSIZE ADJ
NC
STB. 12V
RC. CLK
RELAY
P. GND
H. SIZE ADJ
CPU-RST
H. BLK
P. KEY
H. DRIVE
NJM4558
MOD. 001
ATK1045
OVER CURRENT

□ : HIGH VOLTAGE GENERATION POINT
(EXCEPTIG THE CHARGED SECTION)


E1
L2 DY (R)
E2
L3 DY (G)
E3
L4 DY (B)
VR1 FOCUS VR
GND
CRT ASSY R, G, B
ANODE
HV DISTRI-BUTOR
ANODE
ANODE
ANODE
CRT ASSY R, G, B
H. OUT
REG. OUT
P.B.(X-RAY)
Q201 Q204 Q211 Q214 Q106 Q105 Q107 Q219 Q220 IC103 Q223
Q206 Q212 Q213 Q210 Q207 Q225 Q215 Q104 Q217 Q218 Q224
Q205 Q209 Q208 Q222 Q216 IC201 IC202

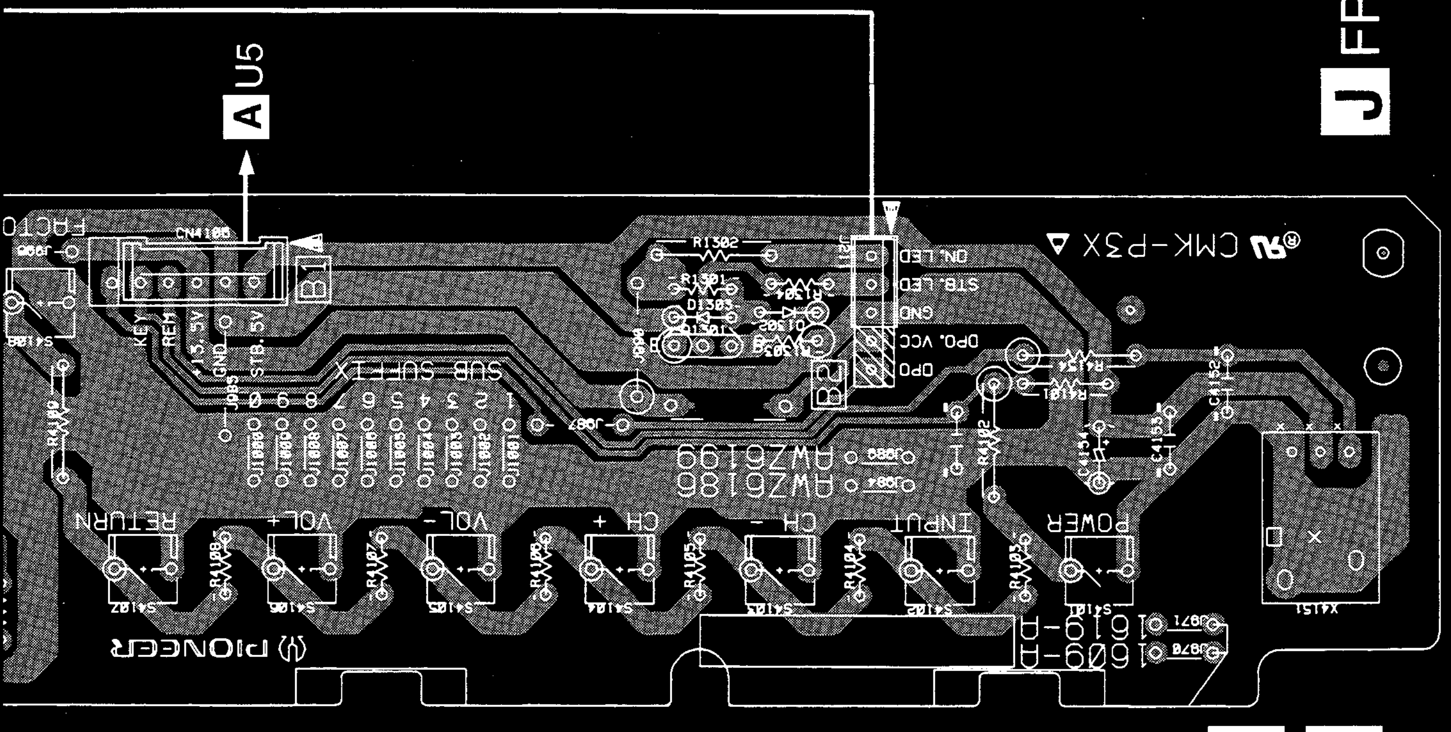
## 4.7 FRONT CONTROL, INDICATOR, POWER SW AND CONNECTOR A ASSEMBLIES


K INDICATOR ASSY
PIONEER
CMK-P3X
AWZ6187
D1201
DPO
VCC
GND
STB. LED
ON. LED
J211
J855
L POWER SW ASSY
CMK-P3X
AWZ6188
PIONEER
CN2901
S2901
Z1
I E5
SIDE A
B A5
B3
CN4107
CN4108
GND
L
GND
R
GND
VIDEO
GND
C
GND
Y


I E7
A U7
I E6
A U6
K1
K2
K3
K4
HVPARA
PKEY
+13.5V
+13.5V
GND
GND
AGND
+35V
PD
P-25V
-25V
CGND
CGND
+25V
+9V
CMK-P3X
H.BLK
CPU.RST
CPU.RST
ABL
+50V
ADDRV
GND
GND
H.SIZE
STB.24V
STB.12V
AC.CLK
RELAY
P.GND
P.GND
CN2084
CN2083
CN2082
AWZ6189

**M** CONNECTOR A ASSY

(ANP1871-C)


A U5
CN4100
B1
B2
KEY
REM
+13.5V
GND
STB.5V
ON.LED
STB.LED
GND
OPO.VCC
OPO
R1302
R1301
D1303
D1301
D1302
R1303
R1304
SUB SUFFIX
AWZ6199
AWZ6186
RETURN
VOL+
VOL-
CH +
CH -
INPUT
POWER
S4107
S4106
S4105
S4104
S4103
S4102
S4101
X4151
PIONEER
1619-A
1609-A
CMK-P3X
FACTO

**J** FRONT CONTROL ASSY

# 5. PCB PARTS LIST

*NOTES:* • *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*

- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

*Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).*

*560 Ω → $56 \times 10^1$ → 561 .................... RD1/4PU561J*
*47k Ω → $47 \times 10^3$ → 473 .................... RD1/4PU473J*
*0.5 Ω → R50 .................... RN2HR50K*
*1 Ω → 1R0 .................... RS1P1R0K*

*Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).*

*5.62k Ω → $562 \times 10^1$ → 5621 .................... RN1/4PC5621F*

- *Parts marked by ☆ are important parts which relate in X-rays radiation. If any of these parts need to be replaced, always replace with specified parts.*
- *Parts marked by × are important parts which relate in X-rays radiation. If a failure occurs in any of these parts, replace the printed circuit board assembly where the relevant part has already been adjusted as a working component. Do not replace the actual part itself. If any part marked by × is replaced, there is danger of being exposed to X-rays.*

## LIST OF ASSEMBLIES

| Mark | No. | Description | Part No. |
|---|---|---|---|
| NSP | | TUNER·VIDEO ASSY | AWV1609 |
| | | ├ TUNER·VIDEO ASSY | AWZ6185 |
| | | ├ FRONT CONTROL ASSY | AWZ6186 |
| | | ├ INDICATOR ASSY | AWZ6187 |
| | | ├ POWER SW ASSY | AWZ6188 |
| | | └ CONNECTOR A ASSY | AWZ6189 |
| NSP | | AMP ASSY | AWV1611 |
| | | ├ AMP ASSY | AWZ6190 |
| | | ├ R CRT AMP ASSY | AWZ6191 |
| | | ├ G CRT AMP ASSY | AWZ6192 |
| | | └ B CRTAMP ASSY | AWZ6193 |
| NSP | | AV I/O·CNVR. ASSY | AWV1613 |
| | | ├ CONVER CONTROL ASSY | AWZ6195 |
| | | ├ CONNECTOR B ASSY | AWZ6196 |
| | | └ AV I/O ASSY | AWZ6197 |
| ☆ | | POWER SUPPLY SERVICE ASSY | AWV1615 |

## A TUNER•VIDEO ASSY

### SEMICONDUCTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | IC902 | | AT24C04-10PC |
| | IC4501 | | CXA1734S |
| | IC901 | | PD5395A |
| | IC903 | | PST9146 |
| | IC501 | | TA8845BN |
| | Q4501, Q4506, Q4513, Q503, Q504 | | 2SA933S |
| | Q506, Q509-Q511, Q515-Q517 | | 2SA933S |
| | Q522, Q523, Q534, Q536, Q702 | | 2SA933S |
| | Q912, Q913, Q920, Q921 | | 2SA933S |
| | Q4502-Q4505, Q4507, Q4509, Q4512 | | 2SC1740S |
| | Q501, Q502, Q505, Q507, Q508 | | 2SC1740S |
| | Q512-Q514, Q518-Q520 | | 2SC1740S |
| | Q524-Q533, Q535, Q701, Q703 | | 2SC1740S |
| | Q902-Q910, Q914-Q919, Q924 | | 2SC1740S |
| | Q931, Q932 | | 2SC1740S |
| | Q4510, Q521 | | 2SC2235 |
| | Q911 | | 2SD880 |
| | D4501-D4504, D502-D504 | | HSS104-02 |
| | D511, D512, D529-D535 | | HSS104-02 |
| | D539, D540, D543-D545 | | HSS104-02 |
| | D547, D548, D562, D563, D570 | | HSS104-02 |
| | D572-D579, D901, D902, D916 | | HSS104-02 |
| | D922, D923, D926-D930 | | HSS104-02 |
| | D932-D934, D936, D939, D943 | | HSS104-02 |
| | D947-D954, D957-D960 | | HSS104-02 |
| | D962, D963, D973, D985, D996 | | HSS104-02 |
| | D4508, D4509, D509, D510 | | MTZJ15 |
| | D513-D519, D523-D527 | | MTZJ15 |
| | D541, D542, D546, D549-D561 | | MTZJ15 |
| | D564-D569, D571, D909, D921 | | MTZJ15 |
| | D972, D981 | | MTZJ15 |
| | D903-D908, D910-D914 | | MTZJ6.8 |
| | D917-D920, D924, D925 | | MTZJ6.8 |
| | D937, D938, D940-D942 | | MTZJ6.8 |
| | D945, D946, D956, D971 | | MTZJ6.8 |
| | D976, D977, D979, D984 | | MTZJ6.8 |
| | D992, D993, D995 | | MTZJ6.8 |
| | D508 | | RD10ESB2 |
| | D501 | | RD2.2ESB1 |
| | D4505 | | RD33ESB3 |
| | D931 | | RD5.1ESB2 |
| | D4510 | | RD5.6ESB2 |
| | D505-D507, D520-D522, D528 | | S5688G |
| | D536, D537 | | S5688G |

### COILS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | L501-L503, L704 | | LAU100J |
| | L701 | | LAU101J |
| | L702 | | LAU150J |
| | L4501-L4505, L902-L905 | | LAU2R2J |
| | L703 | | LAU3R9J |
| | L901 | | LAU8R2J |

### CAPACITORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | C4510 | (3.3μF, 50V) | ACH1128 |
| | C4504 | (10μF, 50V) | ACH1129 |
| | TC901 | | ACM-020 |
| | C503 | | CCCCH100D50 |
| | C905 | | CCCCH270J50 |
| | C4537, C546, C565-C567 | | CCCSL101J50 |
| | C527, C702, C704 | | CCCSL121J50 |
| | C949, C950 | | CCCSL221J50 |
| | C4529, C933, C939, C940, C952 | | CCCSL470J50 |
| | C544, C703, C933, C939 | | CCCSL680J50 |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | C913 | | CCDSL221J50 |
| | C4502, C4503, C4524, C4527 | | CEAS100M50 |
| | C4531, C4532, C4538, C4542-C4544 | | CEAS100M50 |
| | C514, C533, C547, C555, C926 | | CEAS100M50 |
| | C931, C932 | | CEAS100M50 |
| | C705, C915, C918, C930 | | CEAS101M10 |
| | C4517 | | CEAS101M25 |
| | C524 | | CEAS102M16 |
| | C4505, C4509, C511, C517, C518 | | CEAS1R0M50 |
| | C903, C914, C919, C921, C938 | | CEAS1R0M50 |
| | C557 | | CEAS221M16 |
| | C506, C512, C548, C551, C552 | | CEAS2R2M50 |
| | C4520, C4540, C951 | | CEAS331M16 |
| | C922 | | CEAS3R3M50 |
| | C508, C515, C519, C522, C531 | | CEAS470M25 |
| | C537, C550, C559, C562, C568 | | CEAS470M25 |
| | C927 | | CEAS470M25 |
| | C523 | | CEAS471M10 |
| | C4521, C4525 | | CEAS471M16 |
| | C929 | | CEAS471M25 |
| | C4501, C4506, C4507, C4514-C4516 | | CEAS4R7M50 |
| | C4518, C516 | | CEAS4R7M50 |
| | C910, C911 | | CEASR10M50 |
| | C4511, C507, C536 | | CEASR47M50 |
| | C902, C936 | | CFTXA105J50 |
| | C4508 | | CFTXA224J50 |
| | C4530, C529, C535, C542, C906 | | CKCYB102K50 |
| | C545, C701 | | CKCYB103K50 |
| | C530 | | CKCYB152K50 |
| | C908. C955 | | CKCYB222K50 |
| | C526, C528, C543, C956 | | CKCYB331K50 |
| | C4535, C4536 | | CKCYB332K50 |
| | C505 | | CKCYB472K50 |
| | C901 | | CKCYB561K50 |
| | C4519, C4522, C4523, C4526, C4528 | | CKCYF103Z50 |
| | C4533, C4539, C4541, C538-C541 | | CKCYF103Z50 |
| | C570, C907, C909, C916, C917 | | CKCYF103Z50 |
| | C920, C924, C928 | | CKCYF103Z50 |
| | C509, C520, C525, C534, C549 | | CKCYF473Z50 |
| | C556, C560, C569, C904, C925 | | CKCYF473Z50 |
| | C934 | | CKCYF473Z50 |
| | C912 | | CQMA102J50 |
| | C502, C532 | | CQMA103J50 |
| | C501, C521, C558 | | CQMA104J50 |
| | C510 | | CQMA123J50 |
| | C504 | | CQMA183J50 |
| | C4513 | | CQMA272J50 |
| | C513 | | CQMA392J50 |
| | C4512 | | CQMA473J50 |
| | C553, C554 | | CQMA683J50 |

### RESISTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | R565, R566, R571-R573 | | RD1/2PM100J |
| | R567 | | RD1/2PM150J |
| | R607 | | RD1/2PM221J |
| | R569, R570, R575 | | RD1/2PM271J |
| | R4546 | | RD1/2PM331J |
| | R657 | | RD1/2PM6R8J |
| | R4525 | | RD1/4LMF122J |
| | R558 | | RD1/4LMF220J |
| | R4514 | | RN1/4PC4302F |
| | R4515 | | RN1/4PC6202F |
| | R1011, R955 | | RS1MMF3R9J |
| | R4545 | | RS2MMF150J |
| | R4524 | | RS2MMF272J |
| | R559 | | RS2MMF5R6J |
| | VR4501 | (1kΩ) | ACP1040 |
| | Other Resistors | | RD1/4PU□□□J |

### OTHERS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | DL701 | DELAY LINE | ATN1012 |
| | | PLUG CORD | ADE-082 |
| | J4501 | 3P HOUSING WIRE | ADX2240 |
| | | SHIELD PLATE | ANK1500 |
| | X901 | CERAMIC RESONATOR | ASS1015 |
| | X502 | CERAMIC RESONATOR | ASS1019 |
| | X501 | CRYSTAL RESONATOR (3.579545MHz) | ASS1091 |
| | CN905 | PLUG 5-P | KM250MA5 |
| | CN505 | PLUG 9-P | KM250MA9 |
| | CN901 | 11P SOCKET | KP250NA11 |
| | CN501, CN904 | 12P SOCKET | KP250NA12 |
| | CN902 | 13P SOCKET | KP250NA13 |
| | CN506, CN903 | 15P SOCKET | KP250NA15 |
| | | TV FRONT END SYSTEM UNIT | AXF1084 |
| | | RF SWITCH | AXF1088 |

## B AV I/O ASSY

### SEMICONDUCTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | IC1602, IC1603 | | BA7644AN |
| | IC3003 | | HA11579 |
| | IC3002 | | HD49420FS |
| | IC3001 | | HM53461ZP-12 |
| | IC3004 | | M5233P |
| | IC3301 | | MC14011BF |
| | IC3201 | | MC14066BF |
| | IC3005 | | NJM7805FA |
| | IC1601 | | TC4052BF |
| | IC3006 | | TC4538BF |
| | Q1602-Q1604, Q1610, Q1701, Q1702 | | 2SA1162 |
| | Q1704, Q1710, Q3003, Q3202, Q3208 | | 2SA1162 |
| | Q3211, Q3212, Q3301, Q3307, Q3313 | | 2SA1162 |
| | Q4704, Q4705 | | 2SA1162 |
| | Q1614 | | 2SC2458 |
| | Q1601, Q1605-Q1609, Q1611-Q1613 | | 2SC2712 |
| | Q1615-Q1617, Q1703, Q1706-Q1708 | | 2SC2712 |
| | Q1711, Q1804, Q3001, Q3002 | | 2SC2712 |
| | Q3004-Q3013, Q3201, Q3203-Q3207 | | 2SC2712 |
| | Q3209, Q3210, Q3213, Q3214 | | 2SC2712 |
| | Q3302-Q3305, Q3311, Q3312, Q3314 | | 2SC2712 |
| | Q4701-Q4703, Q4706 | | 2SC2712 |
| | Q3310 | | 2SK208 |
| | D1601-D1610, D1619-D1622 | | 1SS226 |
| | D3001-D3003, D3007, D3201-D3207 | | 1SS226 |
| | D4701, D4702 | | 1SS226 |
| | D1611-D1618, D3004, D3301, D3302 | | 1SS352 |
| | D3005, D3100 | | RD6.8MB |

### COILS AND FILTERS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | F3001 | | ATF1166 |
| | L3008 | | ATH1046 |
| | L1801 | | ATX1008 |
| | F3002 | | CTJ1002 |
| | L3201 | | LAU100J |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | L3004,L3005 | | LAU101J |
| | L3302 | | LAU120J |
| | L4701-L4704 | | LAU2R2J |
| | L3003 | | LAU680J |
| | L3301 | | LAU6R8J |
| | L3001,L3002,L3006,L3007 | | LAU8R2J |
| | F3201 | | VTF1064 |

## CAPACITORS

| | | | |
|---|---|---|---|
| | C3020,C3053 | | CCSQCH101J50 |
| | C3047,C3306 | | CCSQCH121J50 |
| | C3015,C3016,C3055,C3312,C3315 | | CCSQCH151J50 |
| | C3069 | | CCSQCH220J50 |
| | C3307 | | CCSQCH221J50 |
| | C3037 | | CCSQCH270J50 |
| | C3067,C3068 | | CCSQCH271J50 |
| | C3048,C3052 | | CCSQCH330J50 |
| | C3054 | | CCSQCH470J50 |
| | C3314 | | CCSQCH680J50 |
| | C3313 | | CCSQCH681J50 |
| | C3305 | | CCSQCH821J50 |
| | C3308 | | CCSQSL122J50 |
| | C3208 | | CCSQSL151J50 |
| | C4711 | | CCSQSL470J50 |
| | C3044 | | CEANP100M35 |
| | C1601-C1604,C1606-C1609,C3027 | | CEAS100M50 |
| | C3039,C3051,C3056,C3060,C3066 | | CEAS100M50 |
| | C3310,C4702-C4704,C4714,C4717 | | CEAS100M50 |
| | C3012,C3028,C3034,C3040,C3070 | | CEAS101M10 |
| | C3072,C3074 | | CEAS101M10 |
| | C1810,C3201,C3203,C3205,C3302 | | CEAS101M25 |
| | C3304 | | CEAS101M25 |
| | C1611,C1612,C1614-C1618,C1636 | | CEAS1R0M50 |
| | C1704 | | CEAS1R0M50 |
| | C3013,C3014,C3023,C3050 | | CEAS220M50 |
| | C1619,C1621,C1623,C1629,C1630 | | CEAS221M16 |
| | C1637,C1641,C3071 | | CEAS221M16 |
| | C3017 | | CEAS2R2M50 |
| | C3319 | | CEAS330M35 |
| | C4710,C4716 | | CEAS331M16 |
| | C1632,C1634,C1707,C3022,C3206 | | CEAS470M25 |
| | C3311,C3316,C3318 | | CEAS470M25 |
| | C1627,C4701,C4708 | | CEAS471M16 |
| | C3036 | | CEAS4R7M50 |
| | C3025,C3026 | | CEASR22M50 |
| | C3018,C3019 | | CEASR47M50 |
| | C3078 | | CEHAQ101M10 |
| | C3077 | | CEHAQ101M25 |
| | C3038,C3041 | | CEJA1R0M50 |
| | C3064,C3065 | | CFTXA334J50 |
| | C3309 | | CKSQYB392K50 |
| | C1703,C3024,C3059,C4707 | | CKSQYF102Z50 |
| | C1701,C1702,C3006,C3035,C3045 | | CKSQYF103Z50 |
| | C3083,C3202,C3204,C3303 | | CKSQYF103Z50 |
| | C1605,C1610,C1620,C1622 | | CKSQYF104Z50 |
| | C1625,C1626,C1628,C1631,C1640 | | CKSQYF104Z50 |
| | C1705,C1808,C1809,C3005,C3007 | | CKSQYF104Z50 |
| | C3009-C3011,C3021,C3029,C3030 | | CKSQYF104Z50 |
| | C3032,C3033,C3043,C3057,C3058 | | CKSQYF104Z50 |
| | C3063,C3073,C3075,C3076 | | CKSQYF104Z50 |
| | C3080-C3082,C3207,C3301,C3317 | | CKSQYF104Z50 |
| | C4705,C4706,C4709,C4712,C4713 | | CKSQYF104Z50 |
| | C4715 | | CKSQYF104Z50 |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | C3001-C3004,C3042,C3046 | | CKSQYF223Z50 |
| | C3049 | | CKSQYF333Z50 |
| | C3061,C3062 | | CQMA153J50 |
| | C3031 | | CQMA681J50 |

## RESISTORS

| | | | |
|---|---|---|---|
| | R1674 | | RD1/4LMF220J |
| | R1668 | | RS1/2S221J |
| | R3213 | | RS1MMF560J |
| | R3068,R3069,R3100 | | RS2MMF3R9J |
| | R1699 | | RS2MMF5R6J |
| | VR3002 | (470Ω) | ACP1039 |
| | VR3001,VR4701 | (1kΩ) | ACP1040 |
| | VR3003 | | VRTS6VS222 |
| | Other Resistors | | RS1/10S□□□J |

## OTHERS

| | | | |
|---|---|---|---|
| | CN1602 | PIN JACK(9P) | AKB1251 |
| | CN1771 | PIN JACK 1-P | AKB7042 |
| | | HEAT SINK M | ANH-697 |
| | X3001 | CRYSTAL RESONATOR (3.579545MHz) | ASS1091 |
| | CN1603 | PLUG 6-P | KM250MA6 |
| | CN3002 | 12P PLUG | KM250NA12L |
| | CN3003 | 13P PLUG | KM250NA13L |
| | CN3001 | PLUG 15-P | KM250NA15L |
| | TV FRONT END SYSTEM UNIT | | AXF1084 |
| | SCREW | | PBZ30P080FMC |

## C AMP ASSY

## SEMICONDUCTORS

| | | | |
|---|---|---|---|
| | IC1402 | | LA4280-P |
| | IC1401 | | M5222L |
| | IC1403 | | NJM4558DXP |
| | IC2604 | | NJM78M05FA |
| | IC2603 | | NJM79M05FA |
| | IC2601,IC2602 | | STK392-110 |
| | Q3407 | | 2SA1837 |
| | Q1405,Q1409,Q1429,Q2608-Q2610 | | 2SA933S |
| | Q3408 | | 2SA933S |
| | Q2607 | | 2SB950A |
| | Q1401-Q1404,Q1406,Q1408 | | 2SC1740S |
| | Q1410,Q1411,Q1428,Q2601-Q2604 | | 2SC1740S |
| | Q2606,Q2611,Q2612,Q3401-Q3403 | | 2SC1740S |
| | Q3405,Q3409-Q3411 | | 2SC1740S |
| | Q3404 | | 2SC2235 |
| | Q3406 | | 2SC4793 |
| | Q2605 | | 2SD1276A |
| | Q1407 | | 2SK373 |
| | D2614 | | BR3371XJ30A |
| | D1405,D1407,D1408,D1411-D1421 | | HSS104-02 |
| | D1423-D1427,D2613,D2616-D2619 | | HSS104-02 |
| | D3403,D3404,D3407,D3410 | | HSS104-02 |
| | D1401-D1404 | | MTZJ15 |
| | D3408,D3409 | | MTZJ39 |
| | D1406,D1422 | | MTZJ5.1 |
| | D1409,D1410 | | MTZJ6.8 |
| | D2601-D2612,D3405,D3406 | | S5688G |

## COILS

| | | | |
|---|---|---|---|
| | L3401 | | LAU330J |
| | L3402 | | LAU4R7J |

## CAPACITORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | C1436 | | CCCCH100D50 |
| | C2607-C2609, C2618-C2620 | | CCCCH151J50 |
| | C3417 | | CCCCH180J50 |
| | C2623-C2628 | | CCCCH221J50 |
| | C3416 | | CCCCH390J50 |
| | C1432, C1437 | | CCCCH470J50 |
| | C1407, C1408 | | CCCSL101J50 |
| | C1412, C1418, C2639, C2640, C2648 | | CCCSL151J50 |
| | C3423, C3425 | | CCCSL221K2H |
| | C2642 | | CEANP100M35 |
| | C1401, C1402, C1430, C1441, C3405 | | CEAS100M50 |
| | C1431, C1443 | | CEAS101M10 |
| | C2629, C2633, C3412, C3413 | | CEAS101M25 |
| | C1424 | | CEAS102M35 |
| | C1440, C1442, C3426, C3427 | | CEAS1R0M50 |
| | C1406 | | CEAS221M16 |
| | C3419 | | CEAS221M25 |
| | C2601, C2602, C2610-C2613 | | CEAS221M35 |
| | C2621, C2622, C2644, C2645 | | CEAS221M35 |
| | C1415, C1416 | | CEAS2R2M50 |
| | C1413, C1417 | | CEAS330M35 |
| | C1419, C1428 | | CEAS331M25 |
| | C2630, C2635 | | CEAS331M6R3 |
| | C1403, C1404, C1409, C1438, C2643 | | CEAS470M25 |
| | C3401, C3428 | | CEAS470M25 |
| | C1414 | | CEAS470M50 |
| | C1420, C1425 | | CEASR10M50 |
| | C1410, C1411 | | CEASR47M50 |
| | C3403, C3422 | | CEHAQ220M2C |
| | C3409 | | CEHAQ2R2M2C |
| | C1434, C2637, C2638, C2641 | | CKCYB102K50 |
| | C3420, C3421 | | CKCYB102K50 |
| | C1444, C1445 | | CKCYB332K50 |
| | C1433, C1435 | | CKCYB331K50 |
| | C2603-C2606, C2614-C2617 | | CKCYF103Z50 |
| | C2631, C2632, C2634, C2636 | | CKCYF103Z50 |
| | C2646, C2647, C2649-C2651, C3402 | | CKCYF103Z50 |
| | C3410, C3411 | | CKCYF103Z50 |
| | C1405, C1421, C1423, C1427, C1429 | | CKCYF473Z50 |
| | C1439 | | CKCYF473Z50 |
| | C3404, C3418 | | CKDYE103P2H |
| | C3406 | | CQMA103J50 |
| | C3415 | | CQMA104J50 |
| | C3414 | | CQMA104K2E |
| | C3407, C3408 | | CQMA472K2E |

## RESISTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | R3402 | | RD1/2LMF331J |
| | R2654, R2656, R2657, R2659, R2660 | | RD1/2PM151J |
| | R2662 | | RD1/2PM151J |
| | R1431, R1432 | | RD1/2PM152J |
| | R3418, R3419 | | RD1/2PM183J |
| | R3424, R3425 | | RD1/2PM2R2J |
| | R1406 | | RD1/4LMF150J |
| | R1423, R1425 | | RD1/4LMF2R2J |
| | R3422, R3423 | | RD1/4LMF390J |
| | R3401 | | RD1/4LMF4R7J |
| | R3421 | | RS1MMF102J |
| | R3411 | | RS1MMF121J |
| | R2601, R2602, R2611, R2612 | | RS1MMF220J |
| | R2605-R2607, R2615-R2617 | | RS1MMF2R2J |
| | R2655, R2658, R2661 | | RS1MMF470J |
| | R2637 | | RS1MMF562J |
| | R2603, R2604, R2613, R2614 | | RS1MMFR47J |
| | R3408, R3431 | | RS2MMF102J |
| | R2636, R2652 | | RS2MMF2R2J |
| | R1424, R1463, R1464 | | RS2MMF2R7J |
| | R2638, R2653 | | RS2MMF4R7J |
| | R2634, R2635, R2668-R2670, R2687 | | RS3LMF120J |
| | R2651 | | RS3LMF1R8J |
| | R2667 | | RS3LMF2R2J |
| | R3426 | | RS3LMF561J |
| | | Other Resistors | RD1/4PU□□□J |

## OTHERS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | | SCREW | ABA1227 |
| | | PLATE SPRING | ANG1569 |
| | | HEAT SINK M | ANH-697 |
| | | AUDIO HEAT SINK | ANH1533 |
| | | SCREW | BBZ30P080FCU |
| | CN2604, CN2605 | 13P PLUG | KM200IA13 |
| | CN3402 | PLUG 3-P | KM250MA3L |
| | CN3401 | PLUG 3-P | KM250MA3LR |
| | CN1401, CN3403 | PLUG 4-P | KM250MA4L |
| | CN2602 | PLUG 6-P | KM250MA6L |
| | CN2601 | PLUG 6-P | KM250MA6LR |
| | CN2606 | L-PLUG(8P) | KM250MA8L |
| | CN1402 | 11P PLUG | KM250NA11L |
| | CN2608 | 12P PLUG | KM250NA12L |
| | CN2607 | PLUG 15-P | KM250NA15L |
| | | SCREW | PBZ30P080FMC |

# D CONVER CONTROL ASSY

## SEMICONDUCTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | IC2309 | | CA0005AM |
| | IC2304-IC2306 | | NJM4558MD |
| | IC2307, IC2308 | | PA0053B |
| | IC2301-IC2303 | | PM0011AS |
| | Q2301, Q2303, Q2305, Q2307, Q2311 | | 2SA1162 |
| | Q2302, Q2304, Q2306, Q2308, Q2312 | | 2SC2712 |
| | D2301, D2303-D2311, D2315 | | 1SS226 |
| | D2318-D2320 | | 1SS226 |
| | D2312 | | RD15MB |
| | D2302 | | RD5.1MB |
| | D2313, D2316, D2317 | | RD6.8MB |

## CAPACITORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | C2332-C2337, C2345-C2350 | | CCSQSL101J50 |
| | C2356-C2361 | | CCSQSL101J50 |
| | C2364 | | CCSQSL120J50 |
| | C2372, C2373 | | CCSQSL221J50 |
| | C2366 | | CCSQSL680J50 |
| | C2324, C2325, C2363, C2370, C2371 | | CEAS100M50 |
| | C2375 | | CEAS101M25 |
| | C2301, C2303, C2313, C2376 | | CEAS1R0M50 |
| | C2316 | | CEAS1R5M50 |
| | C2378 | | CEAS220M50 |
| | C2339 | | CEAS221M16 |
| | C2314, C2380 | | CEAS330M35 |
| | C2308, C2310, C2319, C2321 | | CEAS331M6R3 |
| | C2329, C2330, C2341, C2343, C2352 | | CEAS331M6R3 |
| | C2354, C2382, C2384 | | CEAS331M6R3 |
| | C2379 | | CEAS470M25 |
| | C2377 | | CEASR47M50 |
| | C2338 | | CFTXA104J50 |
| | C2315 | | CFTYA184J50 |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | C2317,C2323 | | CFTYA224J50 |
| | C2306,C2307,C2309,C2318,C2320 | | CKSQYF104Z50 |
| | C2322,C2326-C2328,C2331,C2340 | | CKSQYF104Z50 |
| | C2342,C2344,C2351,C2353,C2355 | | CKSQYF104Z50 |
| | C2362,C2365,C2367-C2369,C2374 | | CKSQYF104Z50 |
| | C2381,C2383,C2385-C2388 | | CKSQYF104Z50 |
| | C2305,C2312 | | CQMA102J50 |
| | C2302,C2304 | | CQMA471J50 |
| | C2311 | | CQPA152J2A |

### RESISTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | All Resistors | | RS1/10S□□□J |

### OTHERS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | CN2301,CN2302 | CABLE HOLDER | AKT1011 |

## E CONNECTOR B ASSY

### OTHERS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | CN2303,CN2304 | CABLE HOLDER | AKT1011 |
| | CN2305,CN2306 | 13P SOCKET | KP200IA13L |

## F R CRT AMP ASSY

### SEMICONDUCTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | Q2701 | | 2SC3271F |
| | D2701 | | HSS104-02 |

### COILS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | L2703 | | LAU101J |
| | L2701,L2702 | | LAU470J |

### CAPACITORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | C2704 | (1000pF, 2kV) | ACG1001 |
| | C2701 | | CEAS101M25 |
| | C2702 | | CKCYB681K50 |

### RESISTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | R2705 | (47Ω,1/2W) | ACN-225 |
| | R2702 | (1kΩ,1/2W) | ACN1006 |
| ⚠ | R2703,R2704 | | RS3LMF392J |
| | Other Resistors | | RD1/4PU□□□J |

### OTHERS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | SG2702 | SPARK GAP | AEX-019 |
| | SG2701 | SPARK GAP | AEX1024 |
| | CN2701 | CRT SOCKET | AKG1005 |
| | HEAT SINK M | | ANH1541 |
| | CN2702 | PLUG 3-P | KM250MA3R |
| | SCREW | | PMB30P100FMC |

## G G CRT AMP ASSY

### SEMICONDUCTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | Q2731 | | 2SC3271F |
| | D2731 | | HSS104-02 |

### COILS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | L2733 | | LAU101J |
| | L2731,L2732 | | LAU470J |

### CAPACITORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | C2734 | (1000pF,2kV) | ACG1001 |
| | C2733 | (4.7μF,250V) | ACH1283 |
| | C2731 | | CEAS101M25 |
| | C2732 | | CKCYB681K50 |

### RESISTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | R2735 | (47Ω,1/2W) | ACN-225 |
| | R2732 | (1kΩ,1/2W) | ACN1006 |
| ⚠ | R2733,R2734 | | RS3LMF392J |
| | Other Resistors | | RD1/4PU□□□J |

### OTHERS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | SG2732 | SPARK GAP | AEX-019 |
| | SG2731 | SPARK GAP | AEX1024 |
| | J2,J3 | LEAD WITH 4P HOUSING | ADX2271 |
| | CN2731 | CRT SOCKET | AKG1005 |
| | HEAT SINK M | | ANH1541 |
| | CN2732 | PLUG 3-P | KM250MA3 |
| | SCREW | | PMB30P100FMC |

## H B CRT AMP ASSY

### SEMICONDUCTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | Q2761 | | 2SC3271F |
| | D2761 | | HSS104-02 |

### COILS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | L2763 | | LAU101J |
| | L2761,L2762 | | LAU470J |

### CAPACITORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | C2764 | (1000pF,2kV) | ACG1001 |
| | C2761 | | CEAS101M25 |
| | C2762 | | CKCYB681K50 |

### RESISTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | R2765 | (47Ω,1/2W) | ACN-225 |
| | R2762 | (1kΩ,1/2W) | ACN1006 |
| ⚠ | R2763,R2764 | | RS3LMF392J |
| | Other Resistors | | RD1/4PU□□□J |

### OTHERS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | SG2762 | SPARK GAP | AEX-019 |
| | SG2761 | SPARK GAP | AEX1024 |
| | CN2761 | CRT SOCKET | AKG1005 |
| | HEAT SINK M | | ANH1541 |
| | CN2762 | PLUG 3-P | KM250MA3B |
| | CN2763 | PLUG 5-P | KM250MA5 |
| | SCREW | | PMB30P100FMC |

## I POWER SUPPLY SERVICE ASSY

### SEMICONDUCTORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| ⚠ | IC101 | | AN8029 |
| × | IC201,IC202 | | NJM4558DXP |
| | IC103 | | NJM7809FA |
| | IC102,IC105 | | PC817CD |
| | Q201,Q204 | | 2SA1145 |
| × | Q205,Q206 | | |
| | Q107,Q116 | | 2SA933S |
| | Q209,Q210,Q217,Q224 | | 2SA933S |
| × | Q101,Q106,Q114,Q115,Q207 | | 2SC1740S |
| | Q215,Q218-Q220,Q223 | | 2SC1740S |
| × | Q103,Q208 | | 2SC2705 |
| | Q211 | | 2SC3332 |
| | Q216 | | 2SC4686A |
| ⚠ | Q214 | | 2SC5299 |
| | Q212 | | 2SD1276A |
| | Q104,Q105,Q213 | | 2SD2399 |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| ⚠ | Q113 | | 2SK1938 |
| | D112,D192,D193 | | 10DF2 |
| | D199 | | BR3371XJ30A |
| × | D211 | | ERA22-02 |
| ⚠ | D209 | | ERB06-15 |
| | D210,D214,D228 | | ERB06-15 |
| | D208 | | ERB93-02L3 |
| | D116,D136 | | ERC90M-02 |
| | D115 | | ERD29-06J |
| ⚠ | D212 | | ESC021M-15 |
| | D113,D122,D137-D142 | | HSS104-02 |
| | D144-D146,D149,D194,D201 | | HSS104-02 |
| | D205,D207,D215-D217 | | HSS104-02 |
| | D219-D222,D224-D227 | | HSS104-02 |
| | D119 | | HZS18-1L |
| | D106,D118,D121 | | HZS6B1L |
| | D114 | | HZS6C2L |
| | D101 | | LN6SB60-4000 |
| | D150 | | MA723 |
| | D123 | | MTZJ12 |
| × | D204 | | |
| | D109,D110,D131 | | MTZJ20 |
| | D111 | | MTZJ24 |
| | D124-D127,D190 | | MTZJ5.1 |
| | D117 | | RD5.1ESB1 |
| ⚠× | D203 | | |
| | D223 | | RD5.1ESB1 |
| | D102-D105 | | S5688G |

## COILS

| | | | |
|---|---|---|---|
| | L111,L112 | | ATF1183 |
| | L104,L107-L110,L204 | | ATH-059 |
| ⚠ | L201 | | ATL1131 |
| ⚠ | L203 | | ATL1132 |
| | L113,L120 | | ATX1021 |
| | L202 | | LTA272J |

## TRANSFORMERS

| | | | |
|---|---|---|---|
| ⚠ | T101 | | ATK1107 |
| | T102 | | ATT1272 |
| ⚠ | T201 | | ATK1045 |
| ⚠× | T202 | | |

## RELAYS

| | | | |
|---|---|---|---|
| | RY102 | | ASR1036 |
| ⚠ | RY101 | | BSR1009 |

## CAPACITORS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | C121-C124 | (4700pF,250V) | ACE1105 |
| ⚠ | C127,C128 | (0.22μF,250V) | ACE1107 |
| | C132 | (100pF,2kV) | ACG-032 |
| | C118,C119 | (0.01μF,250V) | ACG-501 |
| | C222 | (1500pF,2kV) | ACG1007 |
| | C106 | (3300pF,2kV) | ACG1008 |
| | C223 | (270pF,2kV) | ACG1010 |
| | C218 | (680pF,2kV) | ACG1024 |
| | C230 | (4700pF,2kV) | ACG1028 |
| | C105,C107 | (2200pF,2kV) | ACG1046 |
| | C216 | (10μF,160V) | ACH1117 |
| | C115,C129 | (470μF,200V) | ACH1147 |
| | C114 | (820μF,200V) | ACH1148 |
| | C152,C156,C202,C211,C213 | | CCCSL101K2H |
| | C133,C150 | | CCCSL221K2H |
| | C243 | | CCCSL271K2H |
| | C219,C238,C239,C242 | | CEAS100M50 |
| | C246 | | CEAS1R0M50 |
| | C229 | | CEAS4R7M50 |
| | C248 | | CEASR10M50 |
| | C210 | | CEHAQ100M2C |
| | C137,C138,C151,C153,C165 | | CEHAQ100M50 |
| | C207 | | CEHAQ100M50 |
| | C141,C143,C204 | | CEHAQ101M16 |
| | C113 | | CEHAQ101M50 |
| | C101 | | CEHAQ102M25 |
| | C111,C126,C136 | | CEHAQ1R0M50 |
| | C221 | | CEHAQ220M2C |
| | C228 | | CEHAQ220M50 |
| | C205,C209 | | CEHAQ221M10 |
| | C139,C203 | | CEHAQ221M16 |
| | C144,C145,C149 | | CEHAQ222M35 |
| | C215 | | CEHAQ2R2M50 |
| | C146 | | CEHAQ331M35 |
| | C163,C164,C170 | | CEHAQ470M25 |
| | C157 | | CEHAQ4R7M2A |
| | C225 | | CFPA103J3C |
| | C224 | | CFPA153J3C |
| | C220 | | CFPA562J3C |
| | C233 | | CFPMA564J2E |
| | C226 | | CFPMA824J2E |
| | C231 | | CFTYA105J50 |
| | C240 | | CKCYB102K50 |
| | C201,C208,C217 | | CKCYB103K50 |
| | C212,C214,C234 | | CKCYB222K2H |
| | C241,C247 | | CKCYB222K50 |
| | C120 | | CKCYB471K50 |
| | C135 | | CKCYB681K50 |
| | C102 | | CKCYF103Z50 |
| | C134,C140,C142,C147,C148 | | CKCYF473Z50 |
| | C206,C227 | | CKCYF473Z50 |
| | C130 | | CKDYE103P2H |
| | C131 | | CKDYF103Z50 |
| | C125,C237 | | CQMA103J50 |
| | C108,C110 | | CQMA182J50 |
| | C235 | | CQMA223J50 |
| | C171 | | CQMA333J50 |
| | C109 | | CQMA473J50 |
| | C232 | | CQMA683J50 |

## RESISTORS

| | | | |
|---|---|---|---|
| | R241 | (47Ω,1/2W) | ACN-225 |
| | R159 | (1MΩ,1/2W) | ACN1008 |
| | R249 | (33kΩ,1/2W) | ACN1011 |
| | R101,R102,R233 | (1Ω,5W) | ACN1032 |
| ⚠ | R268 | (1Ω,5W) | ACN1032 |
| | R160 | (2.2MΩ,1/2W) | BCN1022 |
| | R113 | | RD1/2LMF100J |
| | R107,R112 | | RD1/2LMF220J |
| | R224 | | RD1/2LMF222J |
| | R239 | | RD1/2LMF562J |
| | R238 | | RD1/2PM122J |
| × | R215 | | RD1/2PM361J |
| | R255 | | RD1/2PM561J |
| ⚠ | R231 | | RD1/4LMF221J |
| | R236 | | RD1/4LMF2R2J |
| ⚠ | R288 | | RD1/4LMF3R9J |
| ⚠ | R267 | | RD1/4LMF470J |
| | R225 | | RD1/4LMF471J |
| | R115 | | RD1/4LMF681J |
| | R237,R265 | | RN1/2PC3902F |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | R123,R124 | | RN1/4PC1603F |
| | R133 | | RN1/4PC2101F |
| | R132 | | RN1/4PC2431F |
| | R125 | | RN1/4PC3601F |
| | R270 | | RN1/4PC7502F |
| | R235 | | RS1LMF220J |
| | R163,R164 | | RS1MMF333J |
| | R116 | | RS1MMF473J |
| × | R220 | | |
| | R177 | | RS1MMF820J |
| | R109,R110 | | RS1MMFR22J |
| | R294 | | RS2LMF100J |
| | R121 | | RS2LMF223J |
| | R141,R188 | | RS2MMF100J |
| | R254 | | RS2MMF153J |
| | R134,R199 | | RS2MMF1R2J |
| | R242,R247,R266 | | RS3LMF104J |
| | R219 | | RS3LMF682J |
| | R189 | | RS3LMFR68J |
| | R161,R162,R179 | | RT10PZ120K |
| | R140 | | RT10PZ1R5K |
| | R230 | | RT5PZ470K |
| × | R207 | | |
| × | R209 | | |
| × | R214 | | |
| × | R215 | | |
| × | R212 | | |
| × | R213 | | |
| × | R210 | | |
| × | R236 | | |
| × | R272 | | |
| × | R273 | | |
| × | R274 | | |
| × | R275 | | |
| × | R276 | | |
| × | R277 | | |
| × | R297 | | |
| × | R216 | | |
| × | R217 | | |
| × | R218 | | |
| × | R250 | | |
| × | R251 | | |
| × | R270 | | |
| × | R271 | | |
| × | VR201 | (1kΩ) | |
| × | VR202 | (22kΩ) | |
| | VR102 | | VRTS6VS102 |
| | Other Resistors | | RD1/4PU□□□J |

## OTHERS

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | SG201 | SPARK GAP | AEX1024 |
| | J27 | HV RETURN WIRE | ADX2338 |
| | J26 | HV CABLE | ADY1032 |
| | | NYLON BINDER | AEC-093 |
| | CN201-CN204 | PLUG 3-P | AKM1055 |
| | CN101 | PLUG 2-P | AKM1130 |
| | H101-H104,H151-H154 | | AKR1003 |
| | | HEAT SINK M | ANH-697 |
| | | HEAT SINK | ANH-880 |
| | | HEAT SINK B | ANH1021 |
| | | HEAT SINK | ANH1371 |
| | | SW HEAT SINK | ANH1505 |
| ⚠ NSP | | HV DISTRIBUTOR | AXW1046 |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | | SCREW | BBZ30P080FCU |
| | | SCREW | BBZ30P100FZK |
| | CN103,CN104 | 15P PLUG | KM200IA15 |
| | CN105 | PLUG 4-P | KM250MA4 |
| | CN205 | PLUG 7-P | KM250MA7 |
| | | SCREW | PBH30P120FNI |
| | | SCREW | PBZ30P080FMC |
| | | SCREW | VPZ40P100FMC |
| ⚠ | FU102 | FUSE (500mA/125V) | AEK1010 |
| ⚠ | FU105 | FUSE (4A/125V) | REK1082 |
| ⚠ | FU104 | FUSE (6.3A/125V) | REK1085 |
| ⚠ | FU101 | FUSE (8A/125V) | REK1086 |

## J FRONT CONTROL ASSY

### SEMICONDUCTORS

| No. | Part No. |
|---|---|
| Q1301 | 2SA933S |
| Q4110,Q4111 | 2SC1740S |
| D1302,D1303 | HSS104-02 |

### SWITCHES

| No. | Part No. |
|---|---|
| S4101-S4108 | VSG1009 |

### CAPACITORS

| No. | Part No. |
|---|---|
| C4152 | CCCSL121J50 |
| C4154 | CEAS101M10 |
| C4110,C4111 | CEJA1R0M50 |
| C4153 | CKCYF103Z50 |

### RESISTORS

| No. | Part No. |
|---|---|
| R1302 | RD1/2PMF561J |
| Other Resistors | RD1/4PU□□□J |

### OTHERS

| No. | Description | Part No. |
|---|---|---|
| CN4108 | PIN JACK(3P) | AKB1250 |
| CN4106 | PLUG 5-P | KM250MA5 |
| CN4107 | PLUG 6-P | KM250MA6 |

## K INDICATOR ASSY

### SEMICONDUCTOR

| No. | Part No. |
|---|---|
| D1301 | AEL1152 |

## L POWER SW ASSY

### SWITCH

| No. | Part No. |
|---|---|
| S2901 | ASG1083 |

### OTHERS

| No. | Description | Part No. |
|---|---|---|
| CN2901 | PLUG 3-P | KM250MA3 |

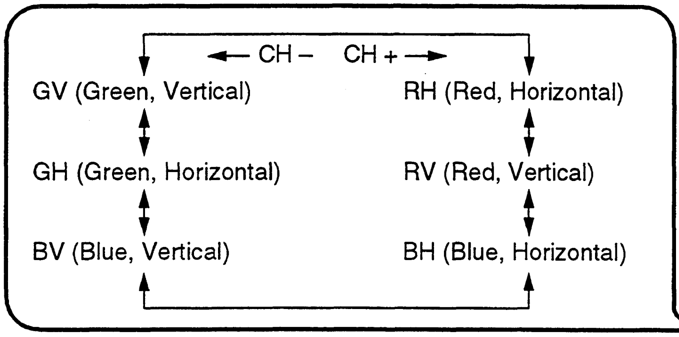
## M CONNECTOR A ASSY

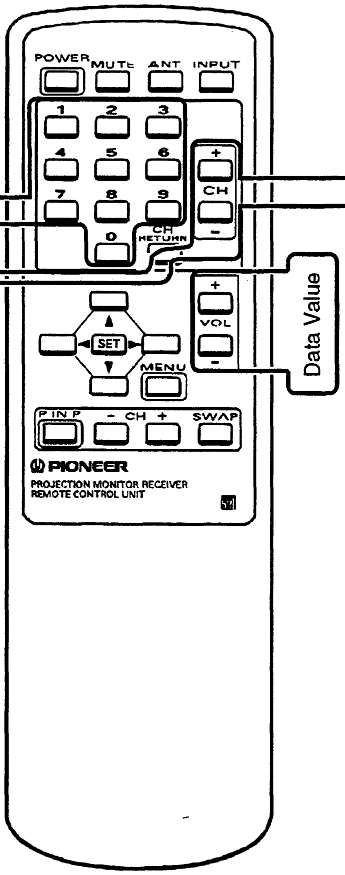
### OTHERS

| No. | Description | Part No. |
|---|---|---|
| CN2891,CN2892 | 15P SOCKET | KP200IA15L |

# 6. ADJUSTMENT

## ■ Key Indication of the Remote Control Unit


CH −
CH +
GV (Green, Vertical)
RH (Red, Horizontal)
GH (Green, Horizontal)
RV (Red, Vertical)
BV (Blue, Vertical)
BH (Blue, Horizontal)


POWER
MUTE
ANT
INPUT
1
2
3
4
5
6
7
8
9
0
CH RETURN
CH
+
−
Data Value
VOL
SET
MENU
P IN P
− CH +
SWAP
PIONEER
PROJECTION MONITOR RECEIVER
REMOTE CONTROL UNIT

### • Adjustment Items

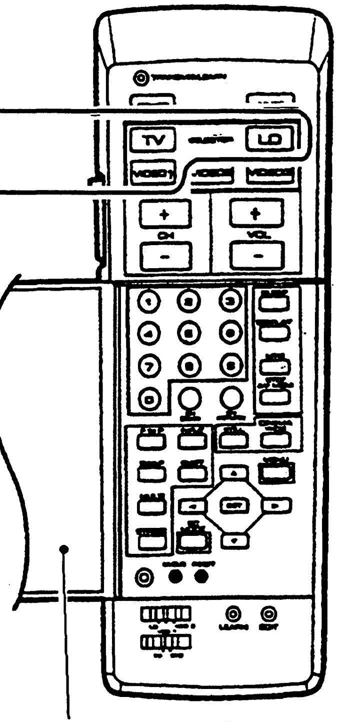
| Adjustment | | Adjustment Name | Numeric Keys | Adjustment Items | Type | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| RANGE | OFFSET | | | | GH | GV | RH | RV | BH | BV |
| / | ○ | CUT-R | 0 | STATIC | ○ | ○ | ○ | ○ | ○ | ○ |
| ○ | / | VOL0 | | | | | | | | |
| ○ | / | Color | 1 | SKEW | ○ | ○ | ○ | ○ | ○ | ○ |
| ○ | / | Tint | 2 | BOW | ○ | ○ | ○ | ○ | ○ | ○ |
| | | | | 4TH BOW | ○ | / | ○ | / | ○ | / |
| ○ | ○ | Contrast | 3 | SUB KEY | ○ | ○ | ○ | ○ | ○ | ○ |
| ○ | ○ | Bright | 4 | KEY | ○ | ○ | ○ | ○ | ○ | ○ |
| | | | | MID KEY | / | ○ | / | ○ | / | ○ |
| ○ | ○ | Sharpness | 5 | MS PIN | ○ | ○ | ○ | ○ | ○ | ○ |
| | | | | SUB PIN | ○ | / | ○ | / | ○ | / |
| | | | | 4S PIN | ○ | / | ○ | / | ○ | / |
| | | | | SC PIN | / | ○ | / | ○ | / | ○ |
| / | / | / | 6 | PIN | ○ | ○ | ○ | ○ | ○ | ○ |
| | | | | MID PIN | ○ | ○ | ○ | ○ | ○ | ○ |
| | | | | 4TH PIN | ○ | ○ | ○ | ○ | ○ | ○ |
| ○ | / | VOL20 | 7 | LIN | ○ | ○ | ○ | ○ | ○ | ○ |
| / | / | / | | 4TH LIN | ○ | / | ○ | / | ○ | / |
| ○ | / | VOL30 | 8 | SIZE | ○ | ○ | ○ | ○ | ○ | ○ |
| / | ○ | DRV-G | | | | | | | | |
| ○ | / | STEREO WIDE ON / OFF | 9 | SUB LIN | ○ | ○ | ○ | ○ | ○ | ○ |
| / | ○ | DRV-B | | | | | | | | |

VR : Adjust GH, GV with semifixed VR

OFFSET → CH + : CUT-G
CONVER → CH − : CUT-B

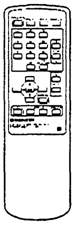
(To output Red, Green and Blue separately)

TV : To output Red ON/OFF
LD : To output Green ON/OFF
VIDEO1 : To output Blue ON/OFF

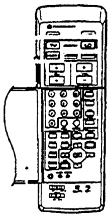

TV
LD
VIDEO1
CH
VOL
+
−

(The upper cover is opened)

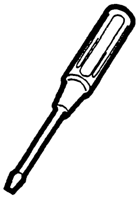
## ■ Jigs and Measuring Instruments



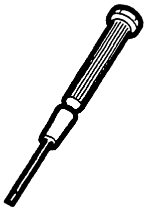
Remote control unit
AXD1429 (CU-SD103)



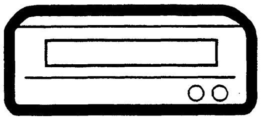
Remote control unit for servicing
AXD1352 (CU-SD076)



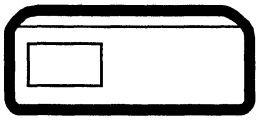
⊖ Screwdriver



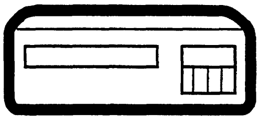
⊖ Adjustment screwdriver



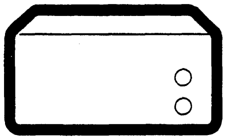
Color bar generator



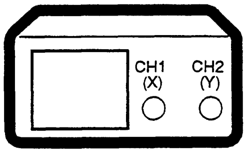
D. DC Voltmeter



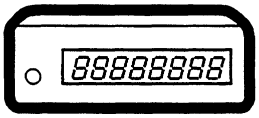
LD Player



Monoscope

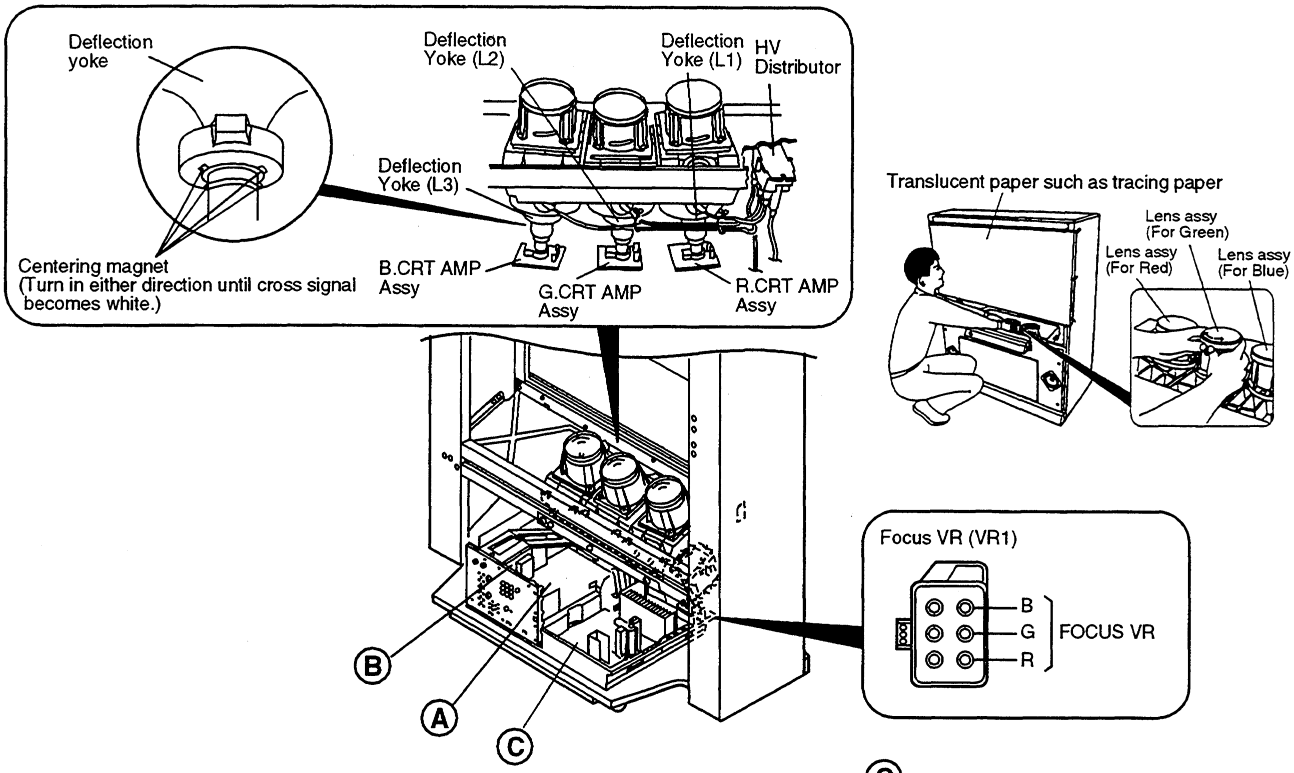


Dual-trace oscilloscope

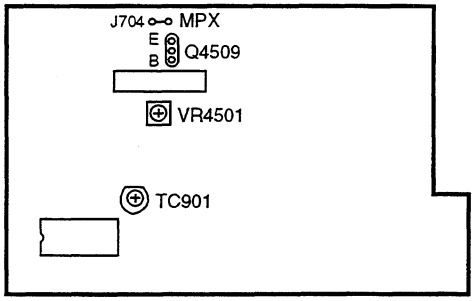


Frequency counter

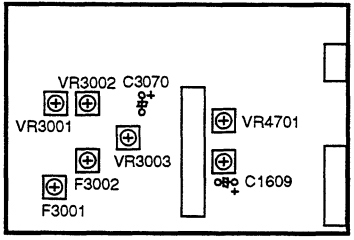
## ■ Assembly Adjustment Location and Items


Deflection yoke
Centering magnet
(Turn in either direction until cross signal becomes white.)
Deflection Yoke (L2)
Deflection Yoke (L1)
HV Distributor
Deflection Yoke (L3)
B.CRT AMP Assy
G.CRT AMP Assy
R.CRT AMP Assy
Translucent paper such as tracing paper
Lens assy (For Green)
Lens assy (For Red)
Lens assy (For Blue)
Focus VR (VR1)
B
G
R
FOCUS VR
Ⓑ
Ⓐ
Ⓒ

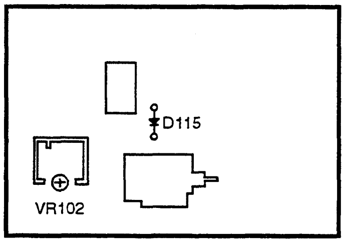
Ⓐ TUNER•VIDEO ASSY


J704
MPX
E
B
Q4509
VR4501
TC901

Ⓑ AV I/O ASSY

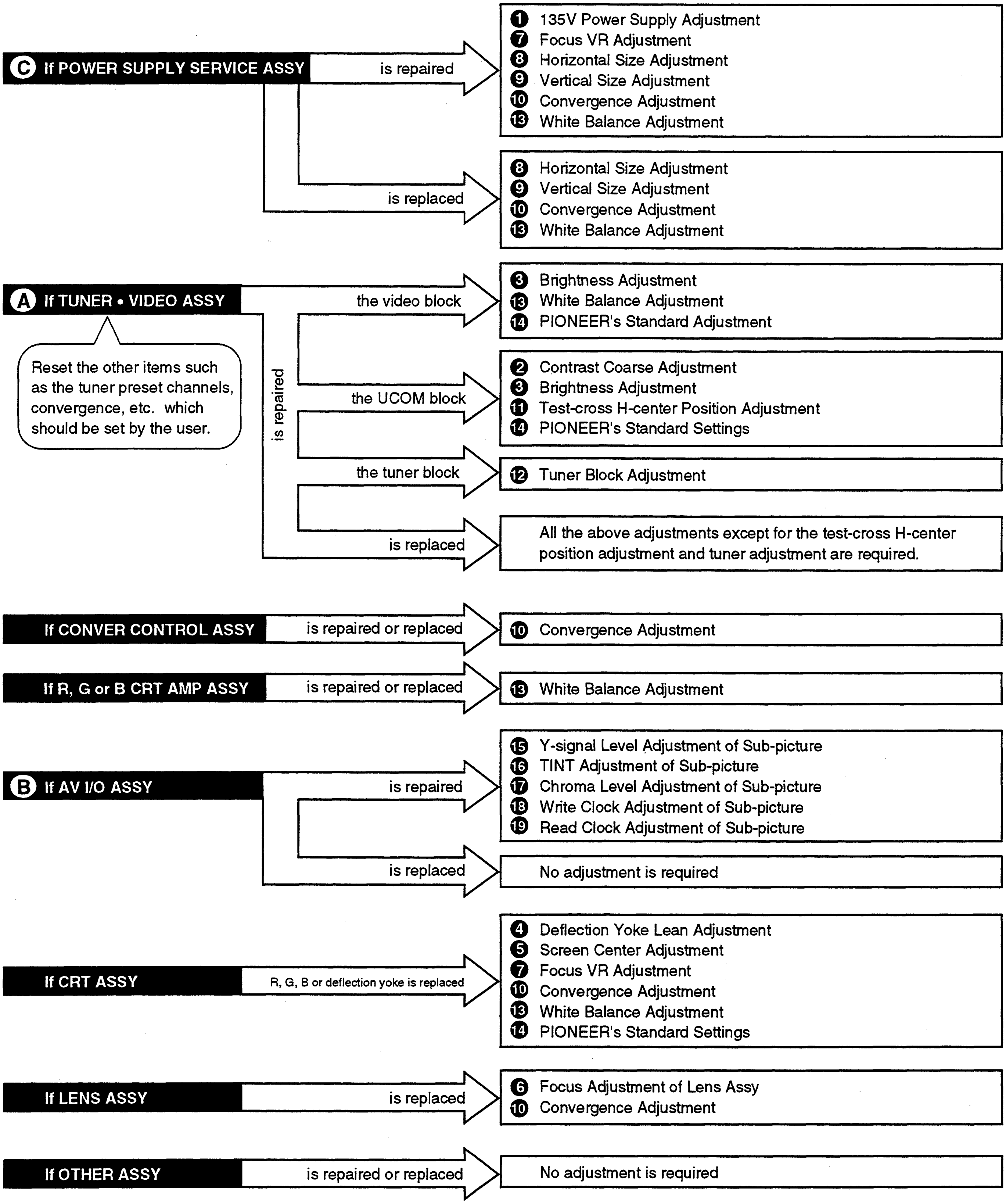

VR3002
C3070
VR3001
VR4701
VR3003
F3002
C1609
F3001

Ⓒ
POWER SUPPLY SERVICE ASSY



❶ 135V Power Supply Adjustment
❷ Contrast Coarse Adjustment
❸ Brightness Adjustment (PIONEER's Standard Settings)
❹ Deflection Yoke Lean Adjustment
❺ Screen Center Adjustment
❻ Focus Adjustment of Lens Assy
❼ Focus VR Adjustment
❽ Horizontal Size Adjustment
❾ Vertical Size Adjustment
❿ Convergence Adjustment
⓫ Test Cross H-Center Position Adjustment
⓬ Tuner Block Adjustment
⓭ White Balance Adjustment
⓮ PIONEER's Standard Settings
⓯ Y-signal Level Adjustment of Sub-picture (Adjustment for P IN P)
⓰ TINT Adjustment of Sub-picture (Adjustment for P IN P)
⓱ Chroma Level Adjustment of Sub-picture (Adjustment for P IN P)
⓲ Write Clock Adjustment of Sub-picture (Adjustment for P IN P)
⓳ Read Clock Adjustment of Sub-picture (Adjustment for P IN P)

## ■ Assembly Adjustment Location Guide



**Ⓒ If POWER SUPPLY SERVICE ASSY**

is repaired

❶ 135V Power Supply Adjustment
❼ Focus VR Adjustment
❽ Horizontal Size Adjustment
❾ Vertical Size Adjustment
❿ Convergence Adjustment
⓭ White Balance Adjustment

is replaced

❽ Horizontal Size Adjustment
❾ Vertical Size Adjustment
❿ Convergence Adjustment
⓭ White Balance Adjustment

**Ⓐ If TUNER • VIDEO ASSY**

Reset the other items such as the tuner preset channels, convergence, etc. which should be set by the user.

is repaired

the video block

❸ Brightness Adjustment
⓭ White Balance Adjustment
⓮ PIONEER's Standard Adjustment

the UCOM block

❷ Contrast Coarse Adjustment
❸ Brightness Adjustment
⓫ Test-cross H-center Position Adjustment
⓮ PIONEER's Standard Settings

the tuner block

⓬ Tuner Block Adjustment

is replaced

All the above adjustments except for the test-cross H-center position adjustment and tuner adjustment are required.

**If CONVER CONTROL ASSY**

is repaired or replaced

❿ Convergence Adjustment

**If R, G or B CRT AMP ASSY**

is repaired or replaced

⓭ White Balance Adjustment

**Ⓑ If AV I/O ASSY**

is repaired

⓯ Y-signal Level Adjustment of Sub-picture
⓰ TINT Adjustment of Sub-picture
⓱ Chroma Level Adjustment of Sub-picture
⓲ Write Clock Adjustment of Sub-picture
⓳ Read Clock Adjustment of Sub-picture

is replaced

No adjustment is required

**If CRT ASSY**

R, G, B or deflection yoke is replaced

❹ Deflection Yoke Lean Adjustment
❺ Screen Center Adjustment
❼ Focus VR Adjustment
❿ Convergence Adjustment
⓭ White Balance Adjustment
⓮ PIONEER's Standard Settings

**If LENS ASSY**

is replaced

❻ Focus Adjustment of Lens Assy
❿ Convergence Adjustment

**If OTHER ASSY**

is repaired or replaced

No adjustment is required

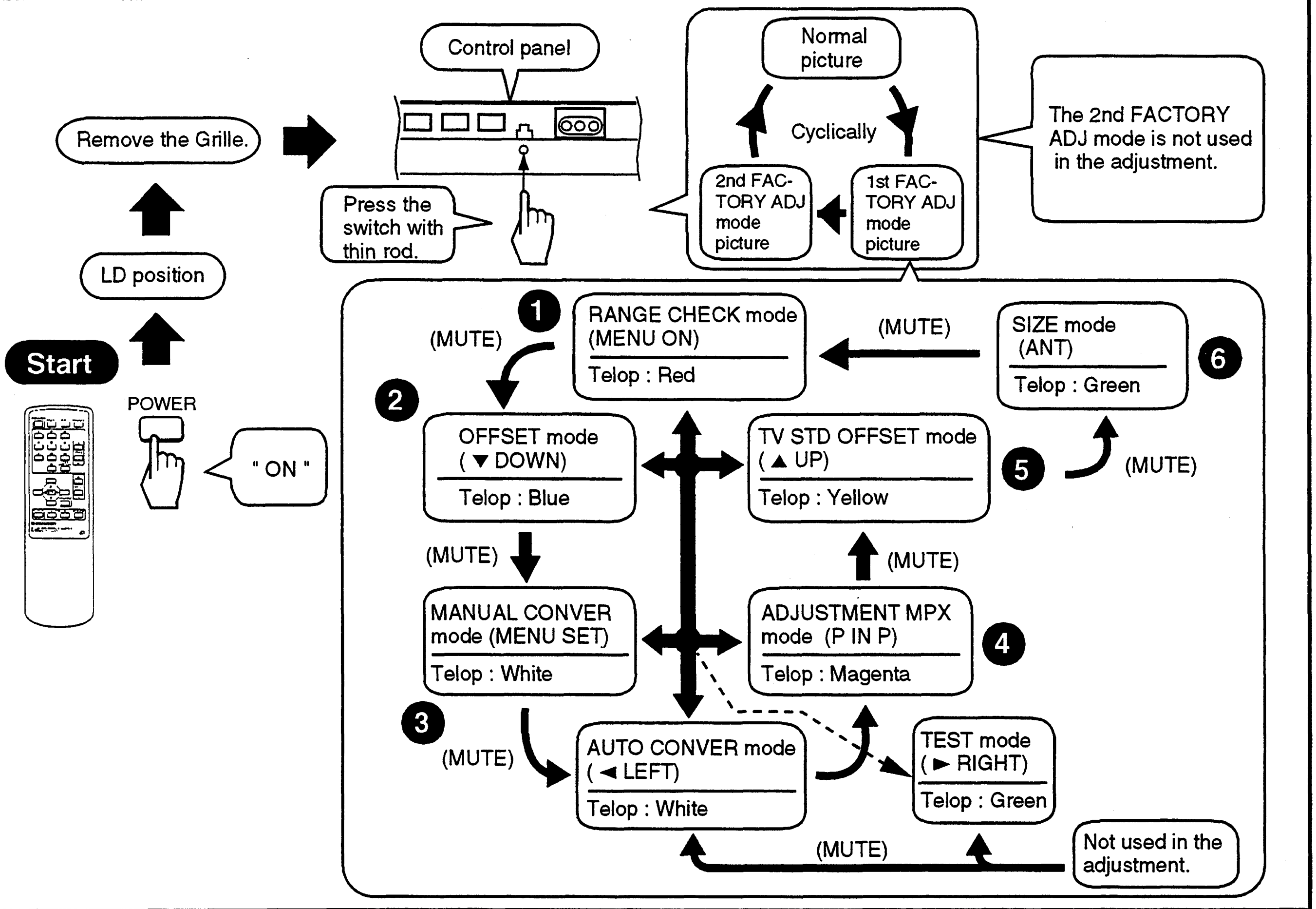
## Factory Adjustment Mode

**Start** ........ Start adjusting

**1st FAC** ...... Select 1st FACTORY ADJ mode, then adjust.

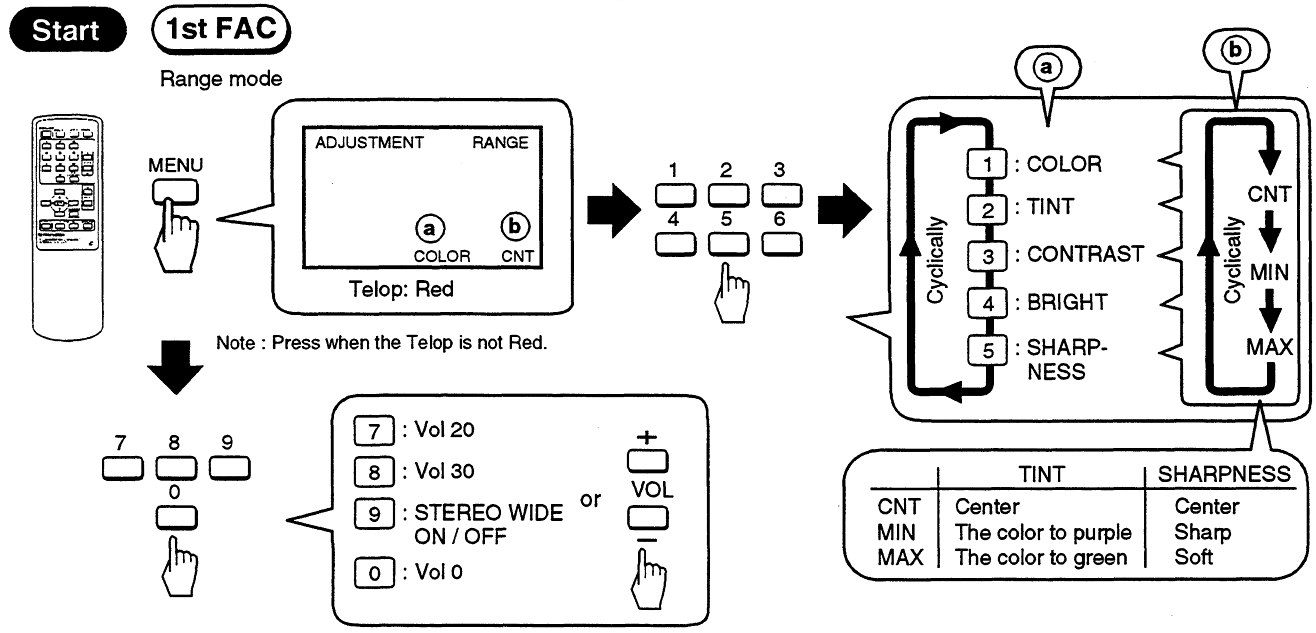
### Select 1st FACTORY ADJ Mode

Selecting the mode for adjustment operations.


Control panel
Remove the Grille.
Press the switch with thin rod.
LD position
Start
POWER
" ON "
Normal picture
Cyclically
2nd FACTORY ADJ mode picture
1st FACTORY ADJ mode picture
The 2nd FACTORY ADJ mode is not used in the adjustment.
1
RANGE CHECK mode (MENU ON)
Telop : Red
(MUTE)
2
OFFSET mode (▼ DOWN)
Telop : Blue
(MUTE)
MANUAL CONVER mode (MENU SET)
Telop : White
3
(MUTE)
AUTO CONVER mode (◄ LEFT)
Telop : White
TEST mode (► RIGHT)
Telop : Green
Not used in the adjustment.
(MUTE)
4
ADJUSTMENT MPX mode (P IN P)
Telop : Magenta
(MUTE)
5
TV STD OFFSET mode (▲ UP)
Telop : Yellow
(MUTE)
6
SIZE mode (ANT)
Telop : Green
(MUTE)

### ① Adjustment Range Mode

Picture quality, etc.. Change amount check made operating.

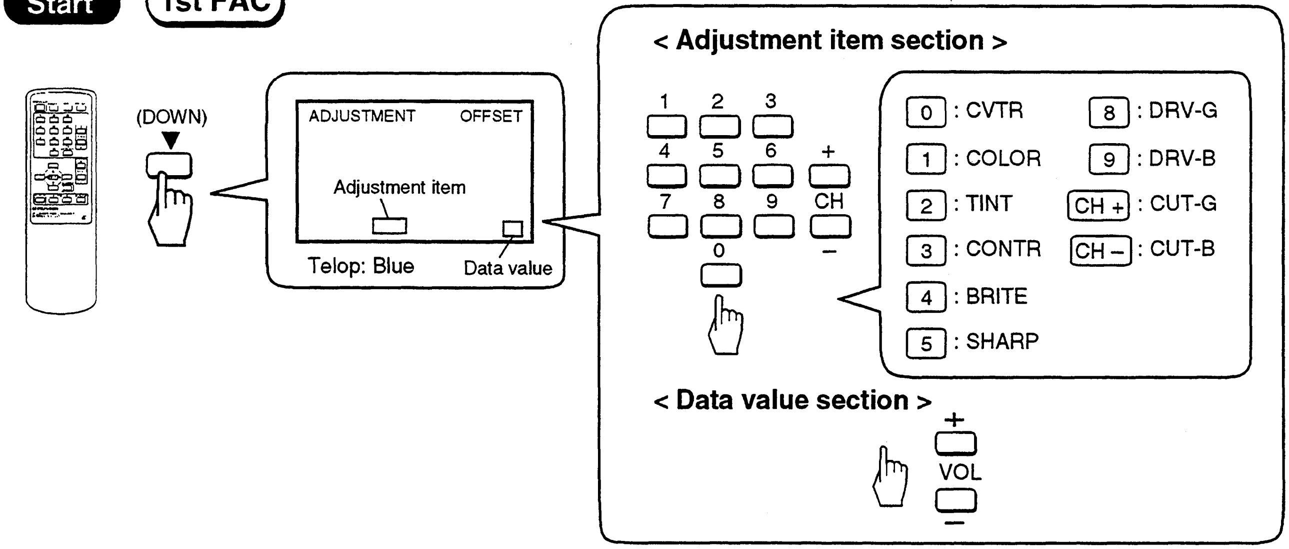

Start
1st FAC
Range mode
MENU
ADJUSTMENT
RANGE
a
b
COLOR
CNT
Telop: Red
Note : Press when the Telop is not Red.
1 2 3
4 5 6
a
b
1 : COLOR
2 : TINT
3 : CONTRAST
4 : BRIGHT
5 : SHARPNESS
Cyclically
CNT
MIN
MAX
Cyclically
7 8 9
0
7 : Vol 20
8 : Vol 30
9 : STEREO WIDE ON / OFF
0 : Vol 0
or
+
VOL
−

| | TINT | SHARPNESS |
|---|---|---|
| CNT | Center | Center |
| MIN | The color to purple | Sharp |
| MAX | The color to green | Soft |

## ❷ Adjustment OFFSET Mode

This mode is to set the standard picture quality for a normal picture.

**Start** **1st FAC**


(DOWN)
ADJUSTMENT
OFFSET
Adjustment item
Telop: Blue
Data value
1
2
3
4
5
6
+
7
8
9
CH
0
–
+
VOL
–

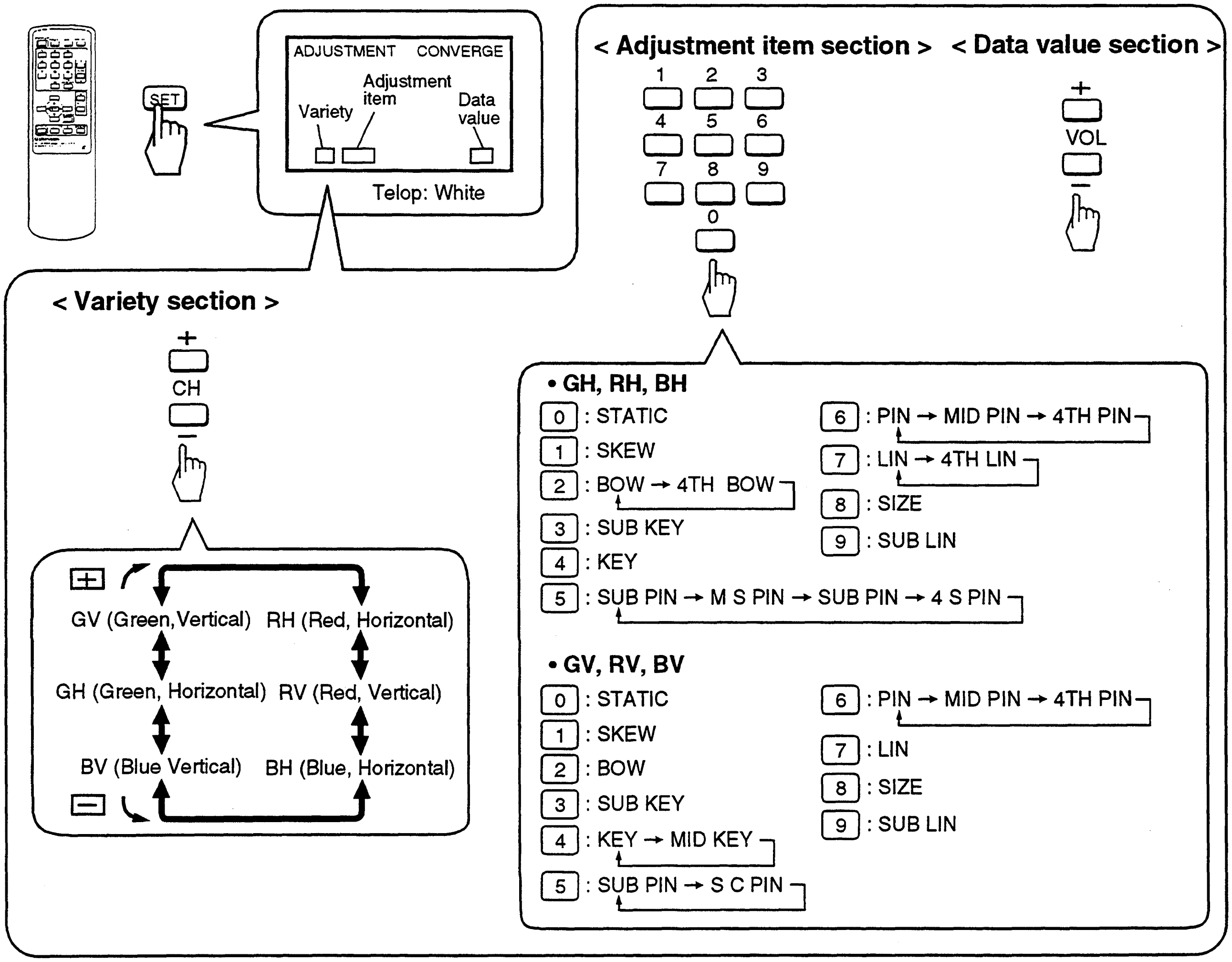
**< Adjustment item section >**

0 : CVTR
1 : COLOR
2 : TINT
3 : CONTR
4 : BRITE
5 : SHARP
8 : DRV-G
9 : DRV-B
CH + : CUT-G
CH – : CUT-B

**< Data value section >**

## ❸ Convergence Setting Mode

**Start** **1st FAC**


SET
ADJUSTMENT
CONVERGE
Adjustment item
Variety
Data value
Telop: White
< Adjustment item section >
< Data value section >
1
2
3
4
5
6
7
8
9
0
+
VOL
–
< Variety section >
+
CH
–
+
GV (Green,Vertical)
RH (Red, Horizontal)
GH (Green, Horizontal)
RV (Red, Vertical)
BV (Blue Vertical)
BH (Blue, Horizontal)
–

**• GH, RH, BH**

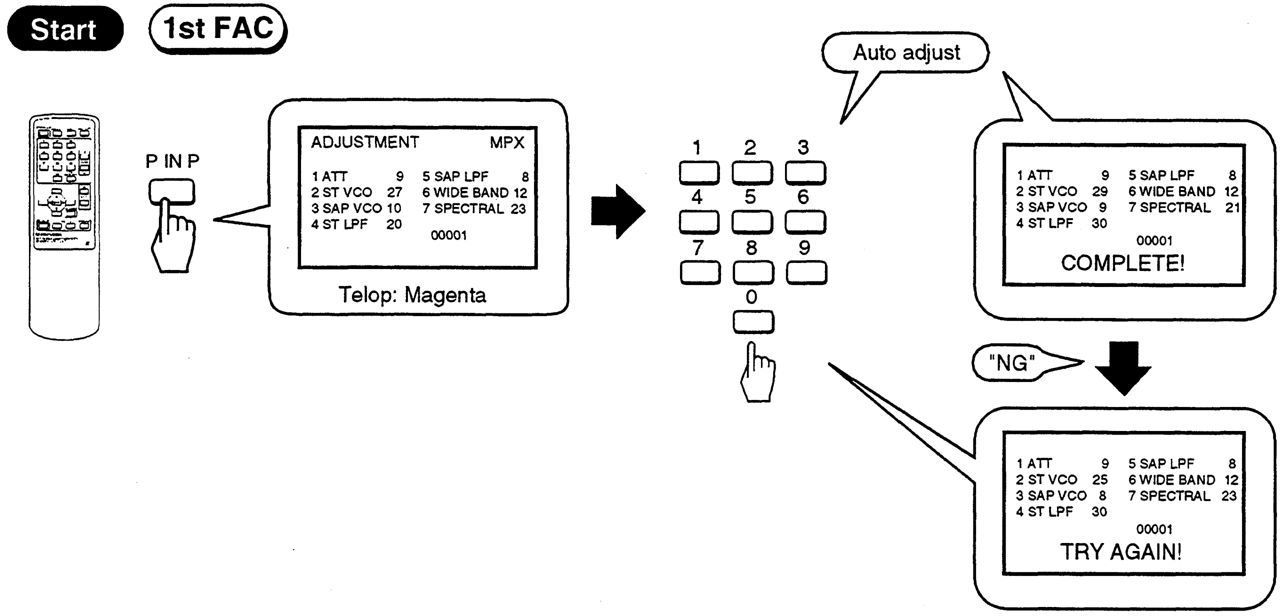
0 : STATIC
1 : SKEW
2 : BOW → 4TH BOW
3 : SUB KEY
4 : KEY
5 : SUB PIN → M S PIN → SUB PIN → 4 S PIN
6 : PIN → MID PIN → 4TH PIN
7 : LIN → 4TH LIN
8 : SIZE
9 : SUB LIN

**• GV, RV, BV**

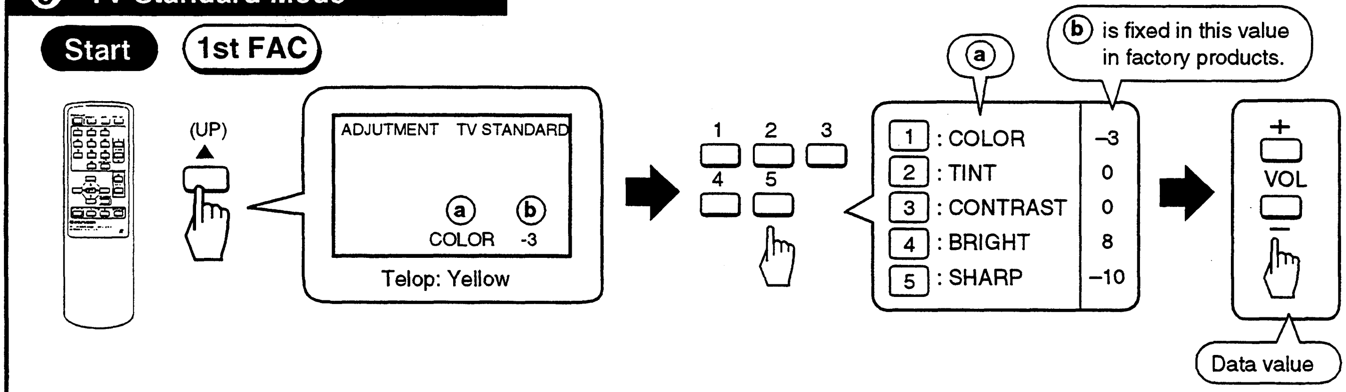
0 : STATIC
1 : SKEW
2 : BOW
3 : SUB KEY
4 : KEY → MID KEY
5 : SUB PIN → S C PIN
6 : PIN → MID PIN → 4TH PIN
7 : LIN
8 : SIZE
9 : SUB LIN

## ④ Adjustment MPX Mode

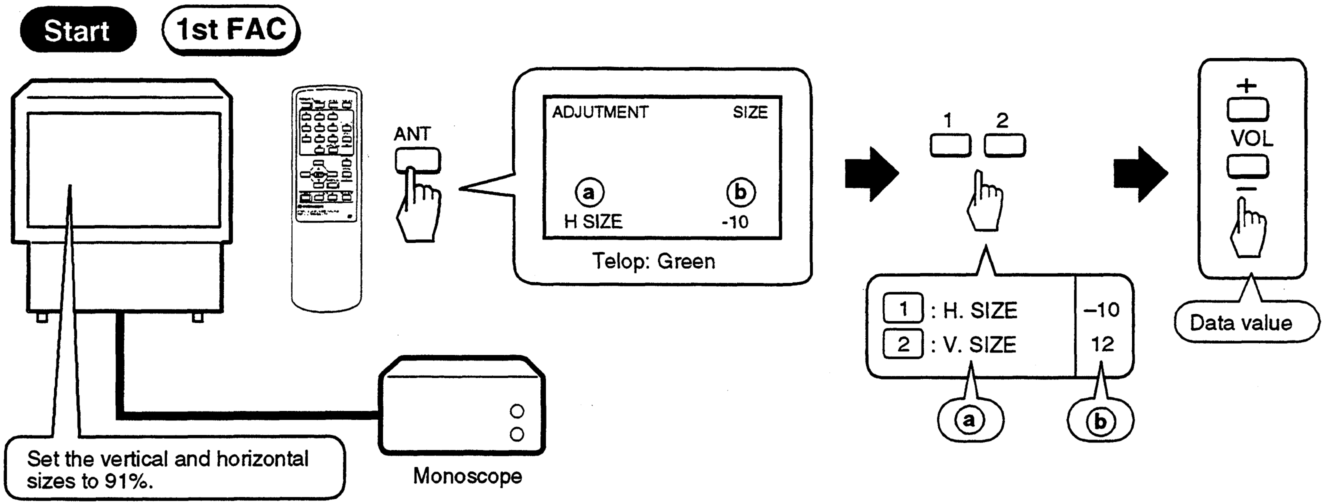
For adjusting the TV tuner MPX decoder section


Start
1st FAC
P IN P
ADJUSTMENT MPX
1 ATT 9
2 ST VCO 27
3 SAP VCO 10
4 ST LPF 20
5 SAP LPF 8
6 WIDE BAND 12
7 SPECTRAL 23
00001
Telop: Magenta
1 2 3 4 5 6 7 8 9 0
Auto adjust
1 ATT 9
2 ST VCO 29
3 SAP VCO 9
4 ST LPF 30
5 SAP LPF 8
6 WIDE BAND 12
7 SPECTRAL 21
00001
COMPLETE!
"NG"
1 ATT 9
2 ST VCO 25
3 SAP VCO 8
4 ST LPF 30
5 SAP LPF 8
6 WIDE BAND 12
7 SPECTRAL 23
00001
TRY AGAIN!

## ⑤ TV Standard Mode

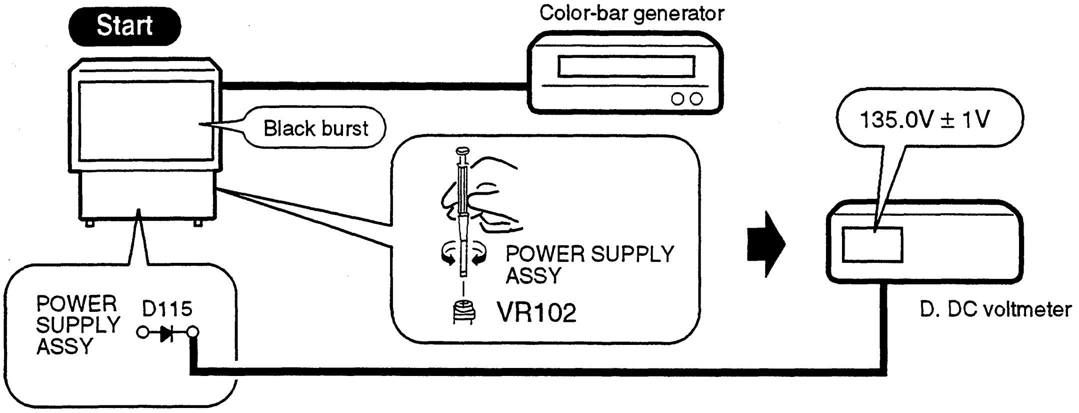

Start
1st FAC
(UP)
ADJUTMENT TV STANDARD
ⓐ ⓑ
COLOR -3
Telop: Yellow
1 2 3 4 5
ⓐ
ⓑ is fixed in this value in factory products.
1 : COLOR –3
2 : TINT 0
3 : CONTRAST 0
4 : BRIGHT 8
5 : SHARP –10
+
VOL
−
Data value

## ⑥ Adjustment SIZE Mode

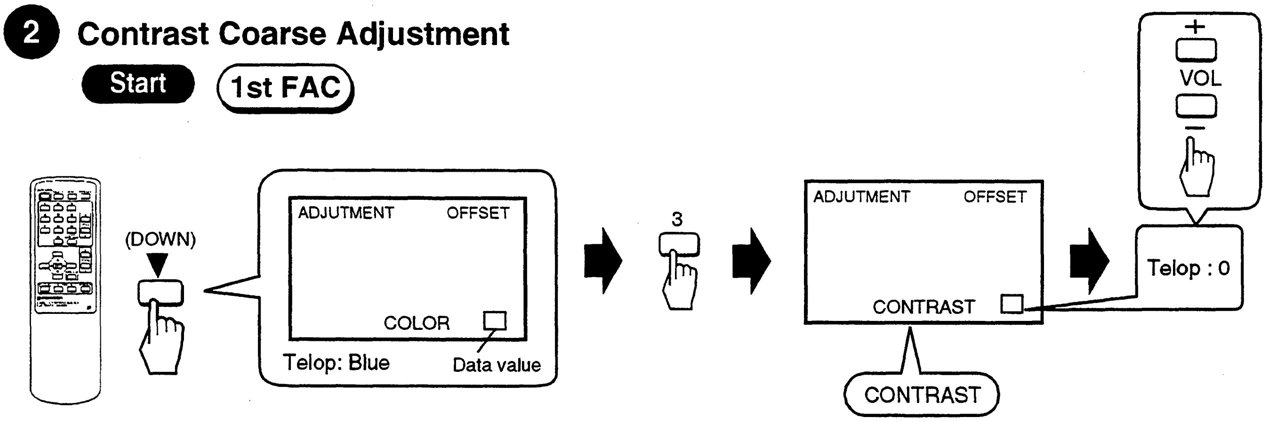

Start
1st FAC
ANT
ADJUTMENT SIZE
ⓐ ⓑ
H SIZE -10
Telop: Green
1 2
1 : H. SIZE –10
2 : V. SIZE 12
ⓐ ⓑ
+
VOL
−
Data value
Set the vertical and horizontal sizes to 91%.
Monoscope

## Assembly Adjustment

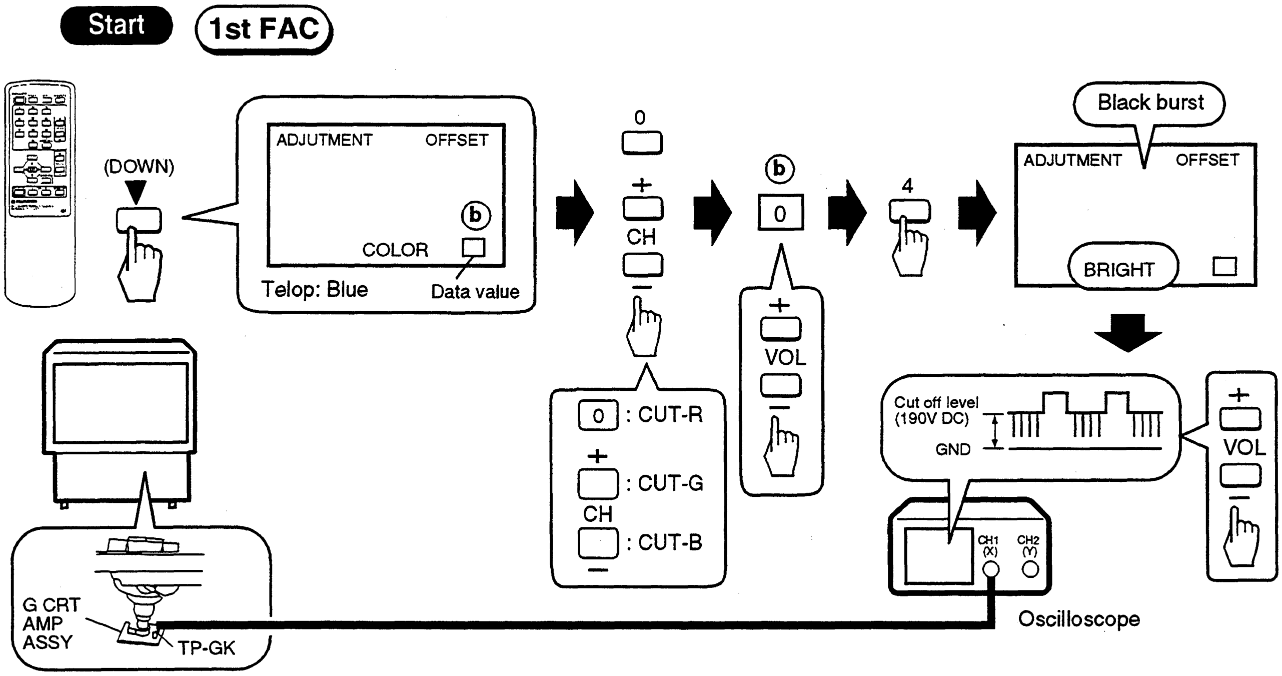
### ❶ 135V Power Supply Adjustment


Start
Color-bar generator
Black burst
135.0V ± 1V
POWER SUPPLY ASSY
VR102
D. DC voltmeter
POWER SUPPLY ASSY
D115

### ❷ Contrast Coarse Adjustment

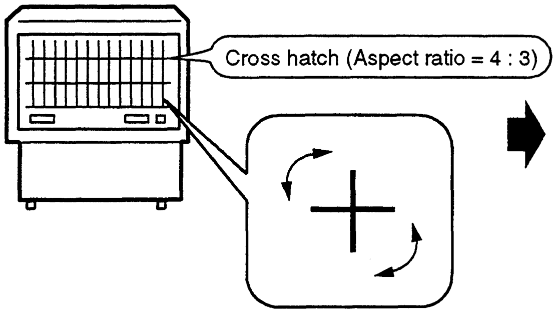

Start
1st FAC
(DOWN)
ADJUTMENT
OFFSET
COLOR
Telop: Blue
Data value
3
ADJUTMENT
OFFSET
CONTRAST
CONTRAST
+
VOL
−
Telop : 0

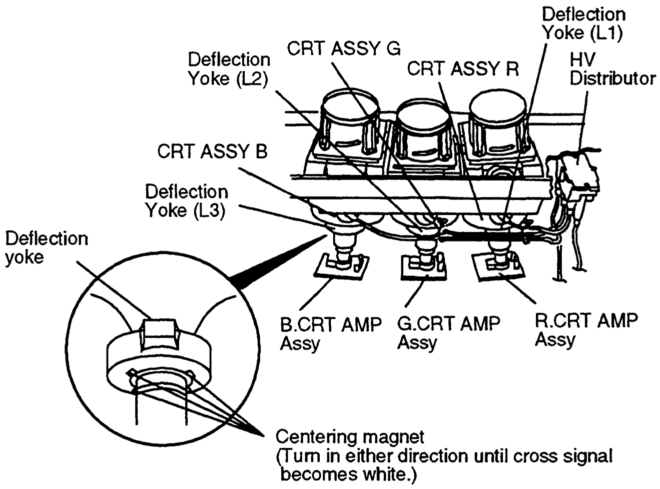
### ❸ Brightness Adjustment (PIONEER's Standard Setting)


Start
1st FAC
(DOWN)
ADJUTMENT
OFFSET
ⓑ
COLOR
Telop: Blue
Data value
0
+
CH
−
ⓑ
0
+
VOL
−
4
Black burst
ADJUTMENT
OFFSET
BRIGHT
0 : CUT-R
+
: CUT-G
CH
: CUT-B
−
Cut off level (190V DC)
GND
CH1 (X)
CH2 (Y)
Oscilloscope
+
VOL
−
G CRT AMP ASSY
TP-GK

## ④ Deflection Yoke Lean Adjustment

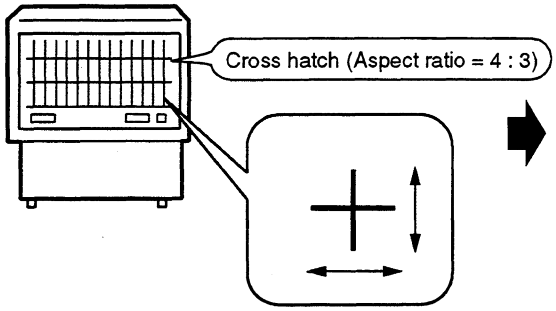
**Start**


Cross hatch (Aspect ratio = 4 : 3)

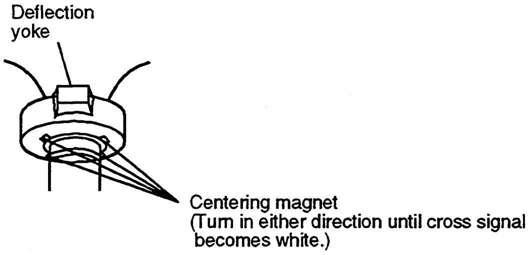

Deflection Yoke (L1)
CRT ASSY G
CRT ASSY R
HV Distributor
Deflection Yoke (L2)
CRT ASSY B
Deflection Yoke (L3)
Deflection yoke
B.CRT AMP Assy
G.CRT AMP Assy
R.CRT AMP Assy
Centering magnet
(Turn in either direction until cross signal becomes white.)

## ⑤ Screen Center Adjustment

**Start**

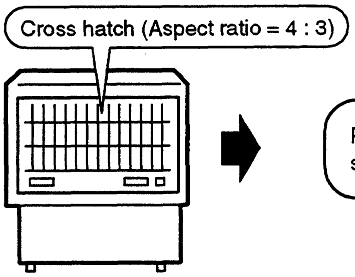

Cross hatch (Aspect ratio = 4 : 3)

- For red or blue adjustment, turn 1st FACTORY ADJ mode ON and then OFF to place the convergence POSITION at the center of the adjustable range.
- Move the centering magnet of the deflection yoke for the replaced color so that the horizontal and vertical lines at the center of the screen align with the lines for a color not replaced.

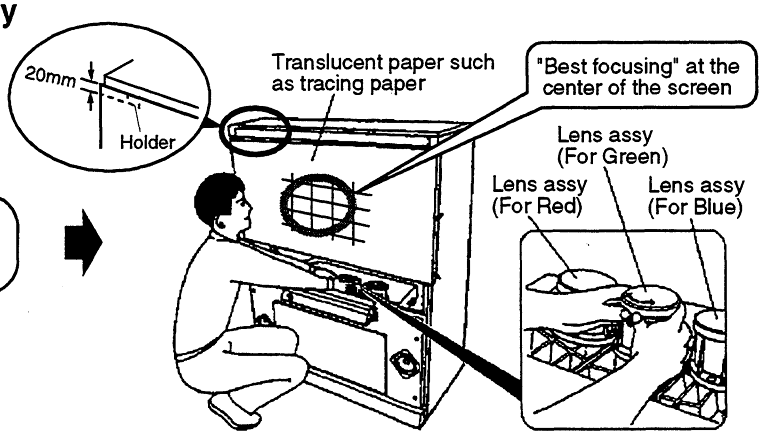

Deflection yoke
Centering magnet
(Turn in either direction until cross signal becomes white.)

## ⑥ Focus Adjustment of Lens Assy

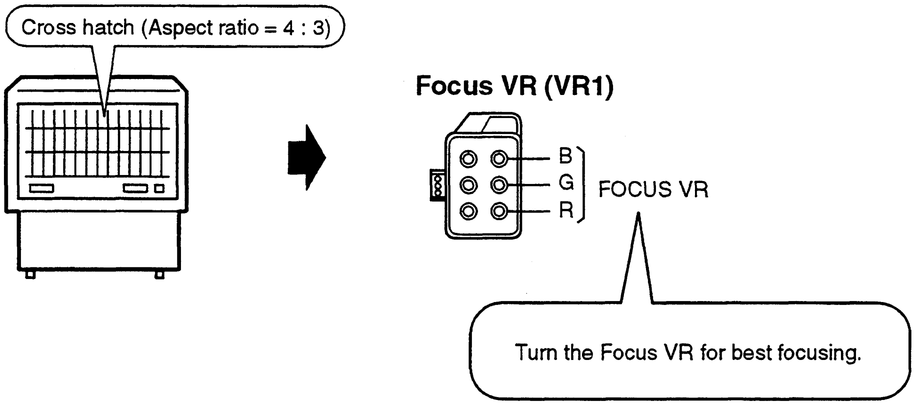
**Start**


Cross hatch (Aspect ratio = 4 : 3)

Remove the screen frame.


20mm
Holder
Translucent paper such as tracing paper
"Best focusing" at the center of the screen
Lens assy (For Green)
Lens assy (For Red)
Lens assy (For Blue)

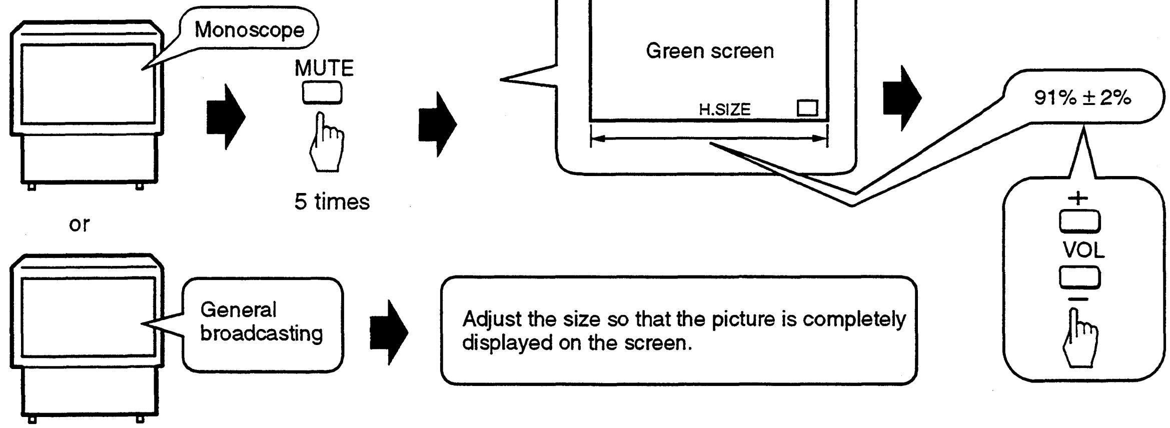
## 7 Focus VR Adjustment


Cross hatch (Aspect ratio = 4 : 3)
Focus VR (VR1)
B
G
R
FOCUS VR

Turn the Focus VR for best focusing.

## 8 Horizontal Size Adjustment

**Start** **1st FAC**

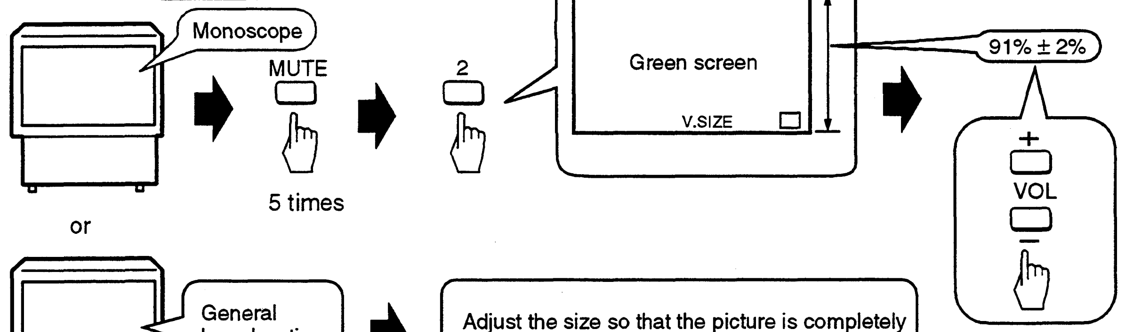

Monoscope
MUTE
5 times
or
General broadcasting
Green screen
H.SIZE
91% ± 2%
+
VOL
−

Adjust the size so that the picture is completely displayed on the screen.

## 9 Vertical Size Adjustment

**Start** **1st FAC**

Note :
After the V. SIZE adjustment, enter the H. SIZE adjustment by pressing "1" key and readjust.


Monoscope
MUTE
5 times
2
Green screen
V.SIZE
91% ± 2%
+
VOL
−
or
General broadcasting

Adjust the size so that the picture is completely displayed on the screen.

Note :
After the H. SIZE adjustment, enter the V. SIZE adjustment by pressing "2" key.

## ⑩ Convergence adjustment

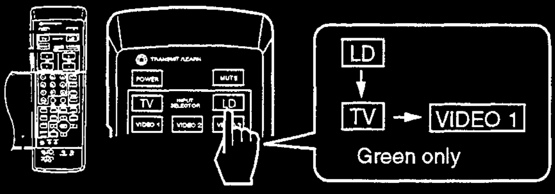
## ⑩-1 Green line adjustment (1st FAC)

- Adjustment in the horizontal direction

**Start**

- See ③ Convergence Setting Mode in the Factory Adjustment mode.
- Input cross-hatch signals to this device's video input terminal.

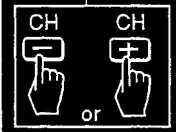
Note :
The convergence for this device must be adjusted for each screen size normal cinema and full cinema.

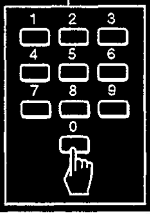

POWER
MUTE
TV
LD
VIDEO 1
VIDEO 2
LD
TV
VIDEO 1
Green only

- Use the remote control unit CU-SD076 for servicing.

### • Select the Adjustment item

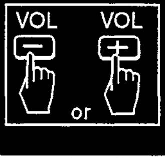
GH - STATIC



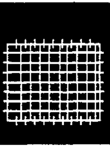
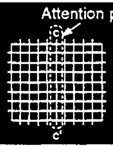
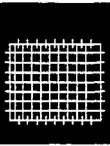
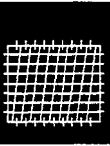
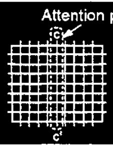
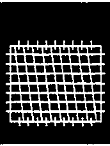
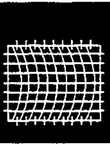
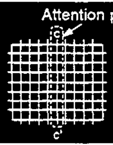
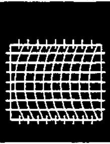
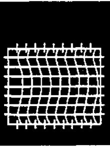
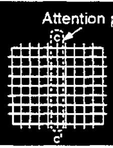
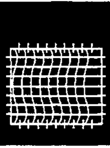
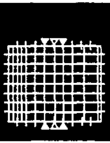
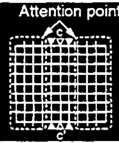
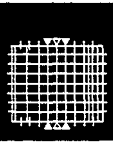
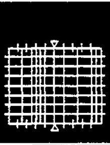
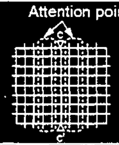
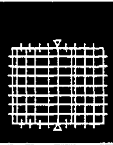
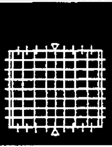
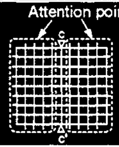
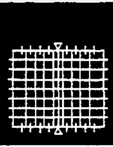
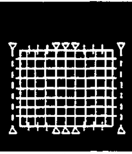
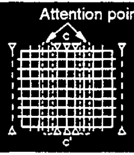
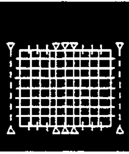

1
2
3
4
5
6
7
8
9
0

In particular, be aware of the setting before adjustment.

### • Adjust the Data value



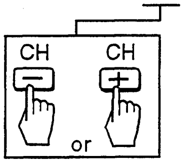
Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to – 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

| Adjustment Item | | Cross-hatch Picture | | | Adjustment Point |
|---|---|---|---|---|---|
| | | Deviated | Optimum | Deviated | |
| Center-line Adjustment | GH - STATIC |  |  Attention point<br>c<br>c' |  | Move the center vertical line at the center of the screen. |
| | GH - SKEW |  |  Attention point<br>c<br>c' |  | Adjust so that the center vertical line is not leaned. |
| | GH - BOW |  |  Attention point<br>c<br>c' |  | Adjust so that the bowed center vertical line at the center of the screen to a straight line. |
| | GH - 4TH BOW |  |  Attention point<br>c<br>c' |  | Adjust so that the wavy center vertical line at the center of the screen to a straight line. |
| Line-interval Adjustment | GH - LIN |  |  Attention point<br>c<br>c' |  | Adjust so that the intervals of the vertical lines in the right and left sections of the screen are symmetrically and correct the size. |
| | GH - 4TH LIN |  |  Attention point<br>c<br>c' |  | |
| | GH - SIZE |  |  Attention point<br>c<br>c' |  | |
| | GH - SUB LIN |  |  Attention point<br>c<br>c' |  | |

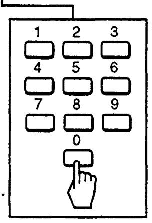
Note : ▹——◃ : Line which does not move at all   c▹——◃c' : Center vertical line   ▸——◂ : Line which hardly moves
▹- - - -◃ : Line which does not move out of the screen

**• Select the Adjustment item**

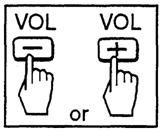
**GH - SUB KEY**



In particular, be aware of the setting before adjustment.

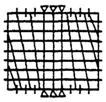
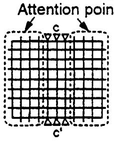
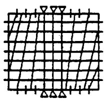
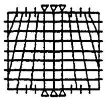
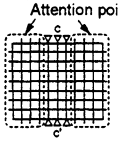
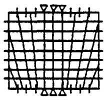
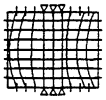
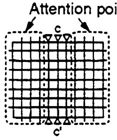
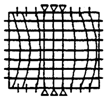
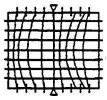
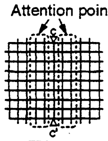
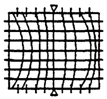
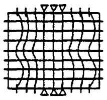
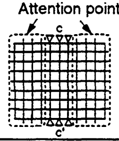
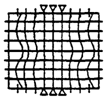
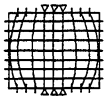
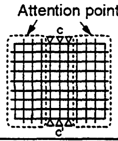
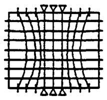
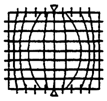
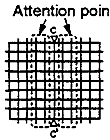
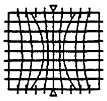
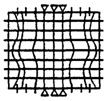
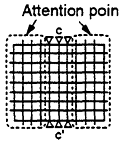
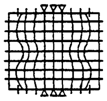

1 2 3
4 5 6
7 8 9
0

**• Adjust the Data value**



Note :

- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to – 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

| Adjustment Item | | Cross-hatch Picture | | | Adjustment Point |
|---|---|---|---|---|---|
| | | Deviated | Optimum | Deviated | |
| **Lean Adjustment** | **GH - SUB KEY** |  |  Attention point<br>c<br>c' |  | Adjust so that the vertical lines in the right and left sections of the screen are not leaned. |
| | **GH - KEY** |  |  Attention point<br>c<br>c' |  | |
| **Distortion Adjustment** | **GH - SUB PIN** |  |  Attention point<br>c<br>c' |  | Adjust so that the vertical lines in the right and left sections of the screen are not distorted and are straight. |
| | **GH - M S PIN** |  |  Attention point<br>c<br>c' |  | |
| | **GH - 4S PIN** |  |  Attention point<br>c<br>c' |  | |
| | **GH - PIN** |  |  Attention point<br>c<br>c' |  | |
| | **GH - MID PIN** |  |  Attention point<br>c<br>c' |  | |
| | **GH - 4TH PIN** |  |  Attention point<br>c<br>c' |  | |

Note : ▷——◁ : Line which does not move   c▷——◁c' : Center vertical line

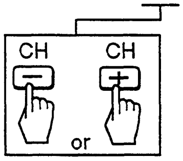
## ⑩-2 Green line adjustment (1st FAC)

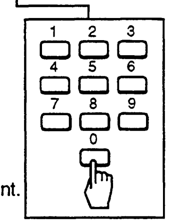
- Adjustment in the vertical direction

**Start**

**• Select the Adjustment item**

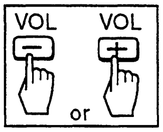
**GV - STATIC**



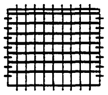
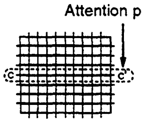
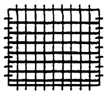
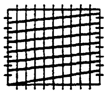
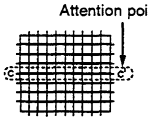
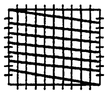
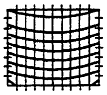
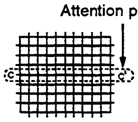
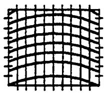
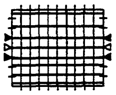
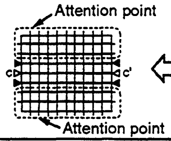
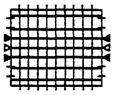
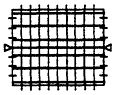
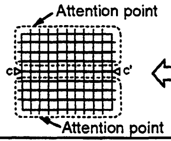
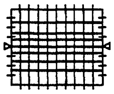
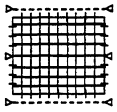
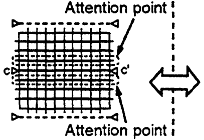
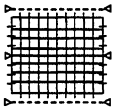

1
2
3
4
5
6
7
8
9
0

In particular, be aware of the setting before adjustment.

**• Adjust the Data value**



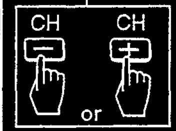
Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to – 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

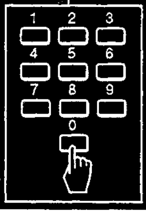
| Adjustment Item | | Cross-hatch Picture | | | Adjustment Point |
|---|---|---|---|---|---|
| | | Deviated | Optimum | Deviated | |
| Center-line Adjustment | GV - STATIC |  |  Attention point<br>c<br>c' |  | Move the center horizontal line at the center of the screen. |
| | GV - SKEW |  |  Attention point<br>c<br>c' |  | Adjust so that the center horizontal line is not leaned. |
| | GV - BOW |  |  Attention point<br>c<br>c' |  | Adjust so that the bowed center horizontal line at the center of the screen to a straight line. |
| Line-interval Adjustment | GV - LIN |  |  Attention point<br>c<br>c'<br>Attention point |  | Adjust so that the intervals of the horizontal lines in the upper and lower sections of the screen are symmetrically and correct the size. |
| | GV - SIZE |  |  Attention point<br>c<br>c'<br>Attention point |  | |
| | GV - SUB LIN |  |  Attention point<br>c<br>c'<br>Attention point |  | |

Note : ▷——◁ : Line which does not move at all c▷——◁c' : Center horizontal line ▶——◀ : Line which hardly moves
▷- - - -◁ : Line which does not move out of the screen

**• Select the Adjustment item**

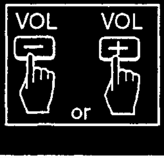
**GV - SUB KEY**



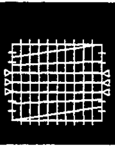
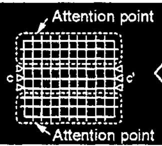
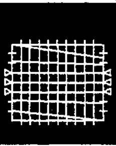
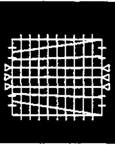
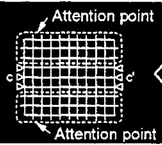
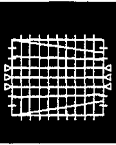
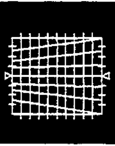
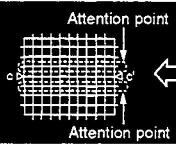
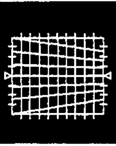
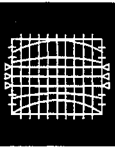
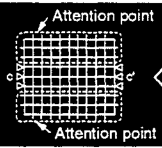
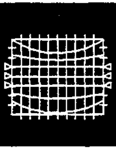
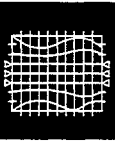
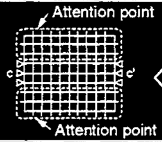
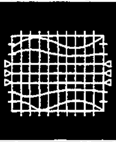
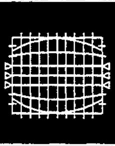
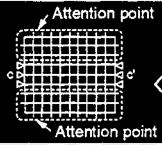
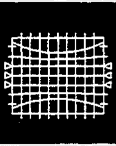
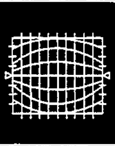
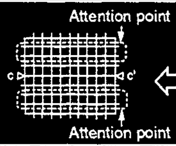
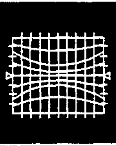
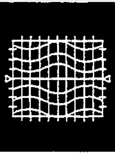
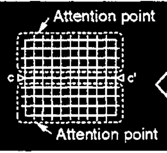
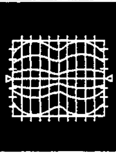

1
2
3
4
5
6
7
8
9
0

In particular, be aware of the setting before adjustment.

**• Adjust the Data value**



Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to – 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

| Adjustment Item | | Cross-hatch Picture | | | Adjustment Point |
|---|---|---|---|---|---|
| | | Deviated | Optimum | Deviated | |
| Lean Adjustment | GV - SUB KEY |  |   Attention point<br>c<br>c'<br>Attention point |  | Adjust so that the horizontal lines in the upper and lower sections of the screen are not leaned. |
| | GV - KEY |  |   Attention point<br>c<br>c'<br>Attention point |  | |
| | GV - MID KEY |  |   Attention point<br>c<br>c'<br>Attention point |  | |
| Distortion Adjustment | GV - SUB PIN |  |   Attention point<br>c<br>c'<br>Attention point |  | Adjust so that the horizontal lines in the upper and lower sections of the screen are not distorted and are straight. |
| | GV - SC PIN |  |   Attention point<br>c<br>c'<br>Attention point |  | |
| | GV - PIN |  |   Attention point<br>c<br>c'<br>Attention point |  | |
| | GV - MID PIN |  |   Attention point<br>c<br>c'<br>Attention point |  | |
| | GV - 4TH PIN |  |   Attention point<br>c<br>c'<br>Attention point |  | |

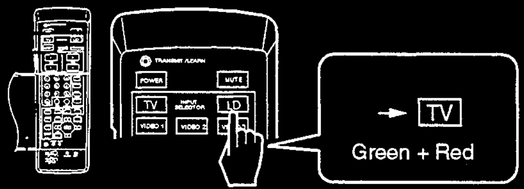
Note : ⊳——⊲ : Line which does not move    c⊳——⊲c' : Center vertical line

## ⑩-3 Red line adjustment (1st FAC)

- Adjustment in the horizontal direction

**Start**

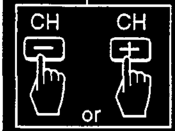
- See ③ Convergence Setting Mode in the Factory Adjustment mode.
- Input cross-hatch signals to this device's video input terminal.

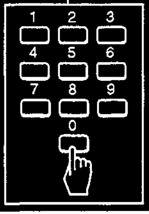

POWER
MUTE
TV
INPUT SELECTOR
LD
VIDEO 1
VIDEO 2
→ TV
Green + Red

- Use the remote control unit CU-SD076 for servicing.

**• Select the Adjustment item**

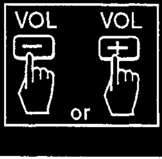
RH - STATIC



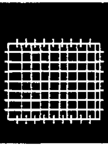
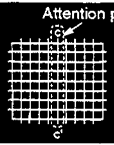
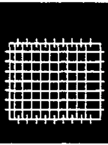
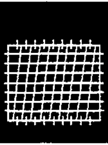
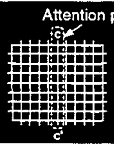
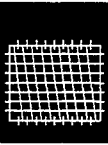
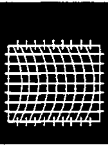
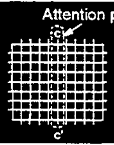
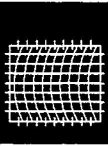
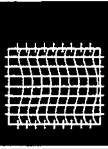
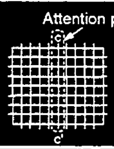
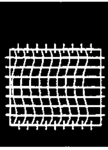
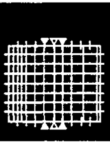
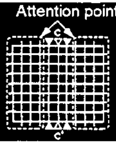
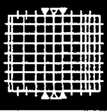
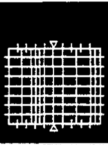
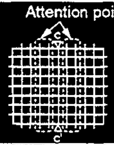
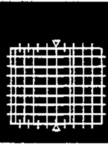
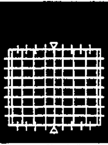
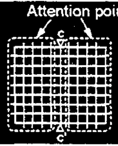
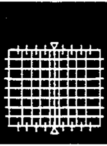
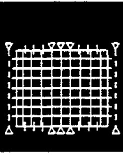
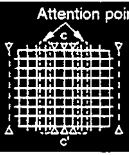
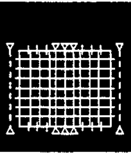

1
2
3
4
5
6
7
8
9
0

In particular, be aware of the setting before adjustment.

**• Adjust the Data value**



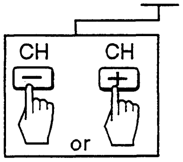
Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to – 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

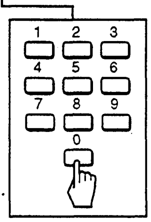
| Adjustment Item | | Cross-hatch Picture | | | Adjustment Point |
|---|---|---|---|---|---|
| | | Deviated | Optimum | Deviated | |
| Center-line Adjustment | RH - STATIC |  |  Attention point<br>c<br>c' |  | Converge the center vertical line in the green vertical line. |
| | RH - SKEW |  |  Attention point<br>c<br>c' |  | Adjust so that the center vertical line is not leaned. |
| | RH - BOW |  |  Attention point<br>c<br>c' |  | Adjust so that the bowed center vertical line at the center of the screen to a straight line. |
| | RH - 4TH BOW |  |  Attention point<br>c<br>c' |  | Adjust so that the wavy center vertical line at the center of the screen to a straight line. |
| Line-interval Adjustment | RH - LIN |  |  Attention point<br>c<br>c' |  | Adjust so that the intervals of the vertical lines in the right and left sections of the screen are symmetrically and converge them in the green vertical lines. |
| | RH - 4TH LIN |  |  Attention point<br>c<br>c' |  | |
| | RH - SIZE |  |  Attention point<br>c<br>c' |  | |
| | RH - SUB LIN |  |  Attention point<br>c<br>c' |  | |

Note : ▷——◁ : Line which does not move at all  c▷——◁c' : Center vertical line  ▶——◀ : Line which hardly moves
▷- - - -◁ : Line which does not move out of the screen

## • Select the Adjustment item

**RH - SUB KEY**




1
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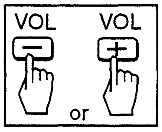
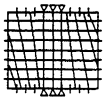
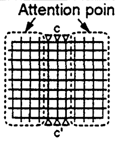
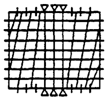
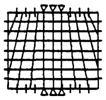
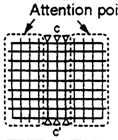
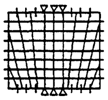
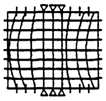
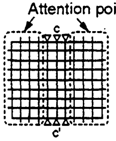
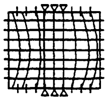
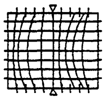
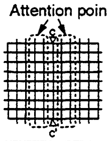
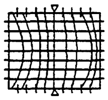
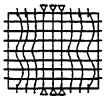
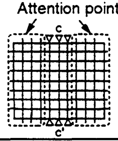
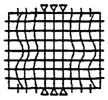
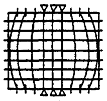
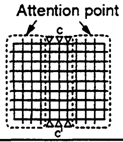
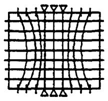
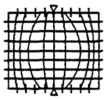
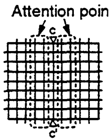
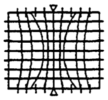
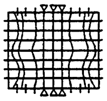
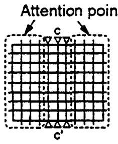
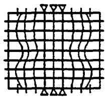
0

In particular, be aware of the setting before adjustment.

## • Adjust the Data value



Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to – 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

| Adjustment Item | | Cross-hatch Picture | | | Adjustment Point |
|---|---|---|---|---|---|
| | | Deviated | Optimum | Deviated | |
| **Lean Adjustment** | **RH - SUB KEY** |  |  Attention point<br>c<br>c' |  | Adjust so that the vertical lines in the right and left sections of the screen are not leaned. |
| | **RH - KEY** |  |  Attention point<br>c<br>c' |  | |
| **Distortion Adjustment** | **RH - SUB PIN** |  |  Attention point<br>c<br>c' |  | Adjust so that the vertical lines in the right and left sections of the screen are not distorted and are straight. |
| | **RH - M S PIN** |  |  Attention point<br>c<br>c' |  | |
| | **RH - 4S PIN** |  |  Attention point<br>c<br>c' |  | |
| | **RH - PIN** |  |  Attention point<br>c<br>c' |  | |
| | **RH - MID PIN** |  |  Attention point<br>c<br>c' |  | |
| | **RH - 4TH PIN** |  |  Attention point<br>c<br>c' |  | |

Note : ▷——◁ : Line which does not move c▷——◁c' : Center vertical line

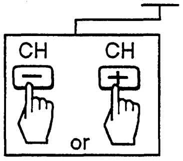
## ⑩-4 Red line adjustment (1st FAC)

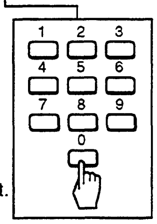
- Adjustment in the vertical direction

**Start**

**• Select the Adjustment item**

**RV - STATIC**




1
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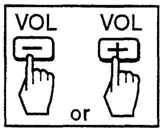
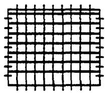
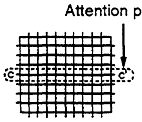
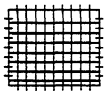
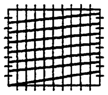
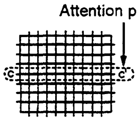
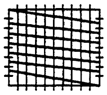
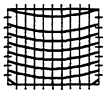
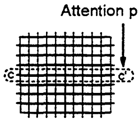
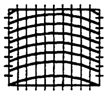
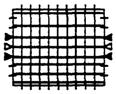
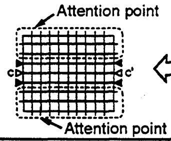
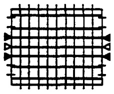
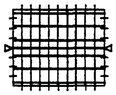
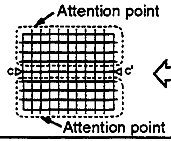
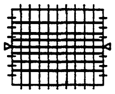
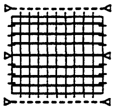
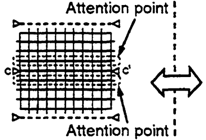
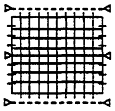
0

In particular, be aware of the setting before adjustment.

**• Adjust the Data value**



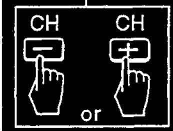
Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to – 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

| Adjustment Item | | Cross-hatch Picture | | | Adjustment Point |
|---|---|---|---|---|---|
| | | Deviated | Optimum | Deviated | |
| Center-line Adjustment | RV - STATIC |  |  Attention point<br>c<br>c' |  | Converge the center horizontal line in the green horizontal line. |
| | RV - SKEW |  |  Attention point<br>c<br>c' |  | Adjust so that the center horizontal line is not leaned. |
| | RV - BOW |  |  Attention point<br>c<br>c' |  | Adjust so that the bowed center horizontal line at the center of the screen to a straight line. |
| Line-interval Adjustment | RV - LIN |  |  Attention point<br>c<br>c'<br>Attention point |  | Adjust so that the intervals of the horizontal lines in the upper and lower sections of the screen are symmetrically and converge them in the green horizontal lines. |
| | RV - SIZE |  |  Attention point<br>c<br>c'<br>Attention point |  | |
| | RV - SUB LIN |  |  Attention point<br>c<br>c'<br>Attention point |  | |

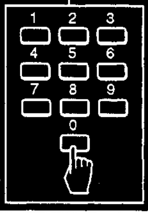
Note : ▷——◁ : Line which does not move at all c▷——◁c' : Center horizontal line ▶——◀ : Line which hardly moves
▷- - - - -◁ : Line which does not move out of the screen

### • Select the Adjustment item

RV - SUB KEY



In particular, be aware of the setting before adjustment.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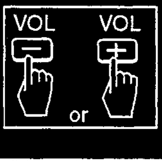
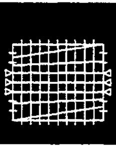
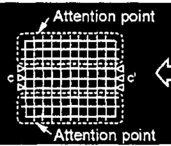
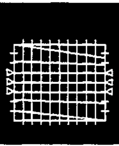
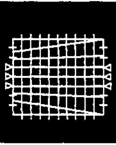
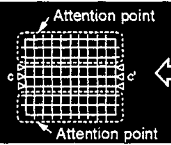
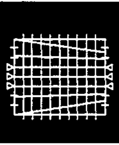
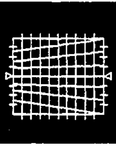
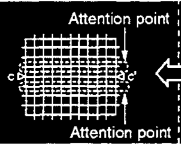
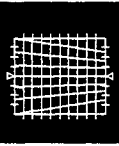
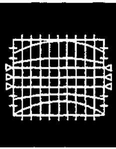
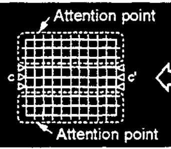
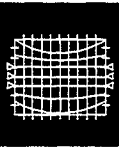
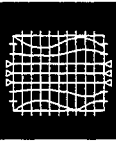
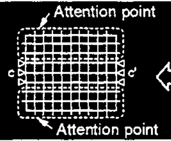
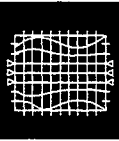
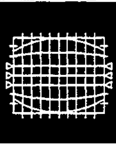
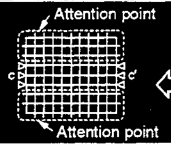
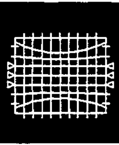
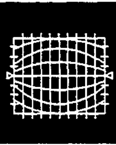
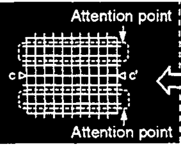
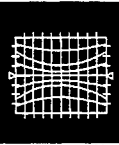
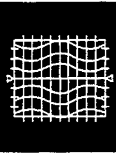
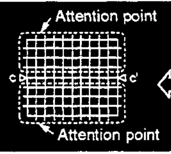
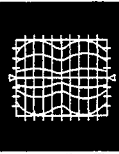
### • Adjust the Data value



Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to – 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

| Adjustment Item | | Cross-hatch Picture | | | Adjustment Point |
|---|---|---|---|---|---|
| | | Deviated | Optimum | Deviated | |
| Lean Adjustment | RV - SUB KEY |  |   Attention point<br>c<br>c'<br>Attention point |  | Adjust so that the horizontal lines in the upper and lower sections of the screen are not leaned. |
| | RV - KEY |  |   Attention point<br>c<br>c'<br>Attention point |  | |
| | RV - MID KEY |  |   Attention point<br>c<br>c'<br>Attention point |  | |
| Distortion Adjustment | RV - SUB PIN |  |   Attention point<br>c<br>c'<br>Attention point |  | Adjust so that the horizontal lines in the upper and lower sections of the screen are not distorted and are straight. |
| | RV - SC PIN |  |   Attention point<br>c<br>c'<br>Attention point |  | |
| | RV - PIN |  |   Attention point<br>c<br>c'<br>Attention point |  | |
| | RV - MID PIN |  |   Attention point<br>c<br>c'<br>Attention point |  | |
| | RV - 4TH PIN |  |   Attention point<br>c<br>c'<br>Attention point |  | |

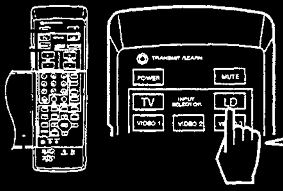
Note : ▷——◁ : Line which does not move  c▷——◁c' : Center vertical line

## ⑩-5 Blue line adjustment (1st FAC)

- Adjustment in the horizontal direction

**Start**

- See ③ Convergence Setting Mode in the Factory Adjustment mode.
- Input cross-hatch signals to this device's video input terminal.

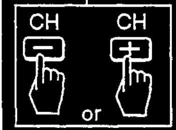

POWER
MUTE
TV
INPUT SELECTION
LD
VIDEO 1
VIDEO 2

To output Green + Red + Blue

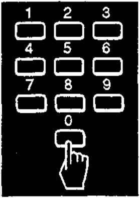
- Use the remote control unit CU-SD076 for servicing.

**• Select the Adjustment item**

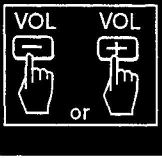
BH - STATIC



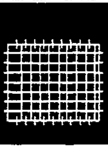
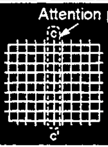
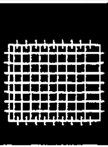
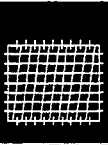
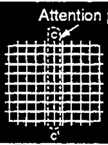
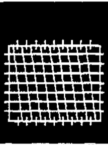
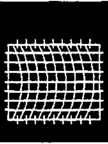
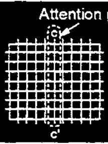
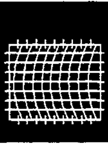
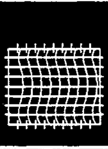
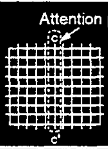
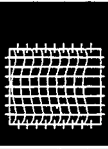
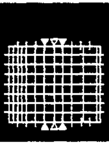
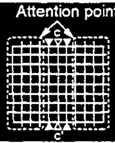
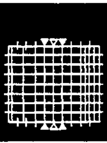
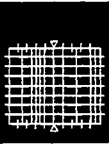
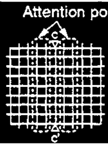
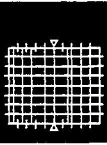
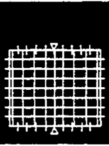
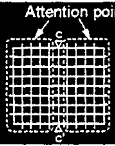
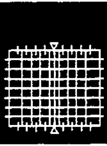
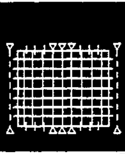
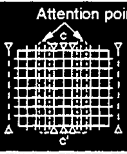
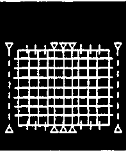
In particular, be aware of the setting before adjustment.


1
2
3
4
5
6
7
8
9
0

**• Adjust the Data value**



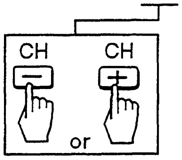
Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to – 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

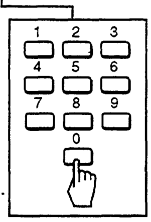
| Adjustment Item | | Cross-hatch Picture | | | Adjustment Point |
|---|---|---|---|---|---|
| | | Deviated | Optimum | Deviated | |
| Center-line Adjustment | BH - STATIC |  |  Attention point<br>c<br>c' |  | Converge the center vertical line in the green vertical line. |
| | BH - SKEW |  |  Attention point<br>c<br>c' |  | Adjust so that the center vertical line is not leaned. |
| | BH - BOW |  |  Attention point<br>c<br>c' |  | Adjust so that the bowed center vertical line at the center of the screen to a straight line. |
| | BH - 4TH BOW |  |  Attention point<br>c<br>c' |  | Adjust so that the wavy center vertical line at the center of the screen to a straight line. |
| Line-interval Adjustment | BH - LIN |  |  Attention point<br>c<br>c' |  | Adjust so that the intervals of the vertical lines in the right and left sections of the screen are symmetrically and converge them in the green vertical lines. |
| | BH - 4TH LIN |  |  Attention point<br>c<br>c' |  | |
| | BH - SIZE |  |  Attention point<br>c<br>c' |  | |
| | BH - SUB LIN |  |  Attention point<br>c<br>c' |  | |

Note : ▻——◅ : Line which does not move at all    c▻——◅c' : Center vertical line    ▶——◀ : Line which hardly moves
▻- - - -◅ : Line which does not move out of the screen

- **Select the Adjustment item**

**BH - SUB KEY**




1
2
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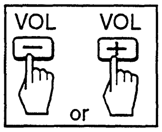
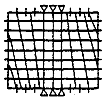
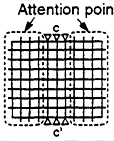
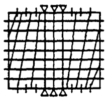
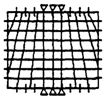
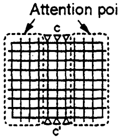
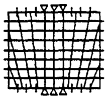
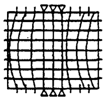
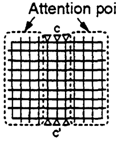
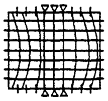
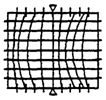
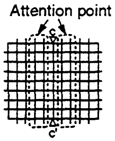
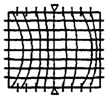
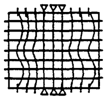
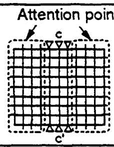
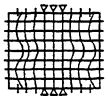
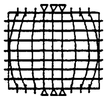
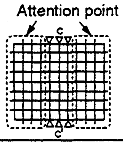
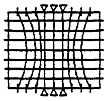
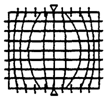
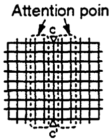
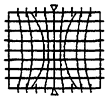
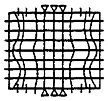
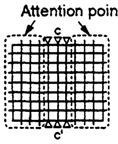
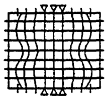
7
8
9
0

In particular, be aware of the setting before adjustment.

- **Adjust the Data value**



Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to – 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust H-STATIC.

| Adjustment Item | | Cross-hatch Picture | | | Adjustment Point |
|---|---|---|---|---|---|
| | | Deviated | Optimum | Deviated | |
| Lean Adjustment | BH - SUB KEY |  |   Attention point<br>c<br>c' |  | Adjust so that the vertical lines in the right and left sections of the screen are not leaned. |
| | BH - KEY |  |   Attention point<br>c<br>c' |  | |
| Distortion Adjustment | BH - SUB PIN |  |   Attention point<br>c<br>c' |  | Adjust so that the vertical lines in the right and left sections of the screen are not distorted and are straight. |
| | BH - M S PIN |  |   Attention point<br>c<br>c' |  | |
| | BH - 4S PIN |  |   Attention point<br>c<br>c' |  | |
| | BH - PIN |  |   Attention point<br>c<br>c' |  | |
| | BH - MID PIN |  |   Attention point<br>c<br>c' |  | |
| | BH - 4TH PIN |  |   Attention point<br>c<br>c' |  | |

Note : ▷——◁ : Line which does not move  c▷——◁c' : Center vertical line

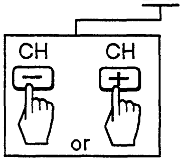
## ⑩ -6 Blue line adjustment (1st FAC)

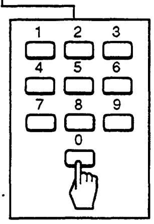
- Adjustment in the vertical direction

**Start**

**• Select the Adjustment item**

**BV - STATIC**




1
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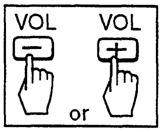
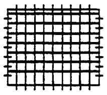
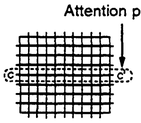
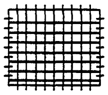
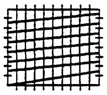
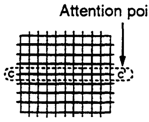
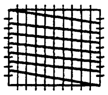
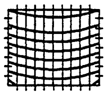
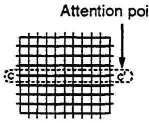
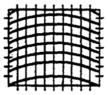
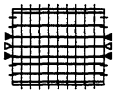
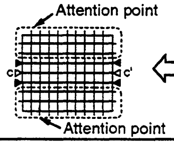
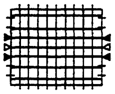
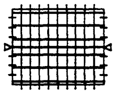
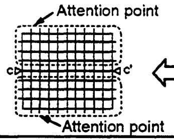
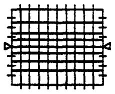
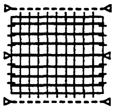
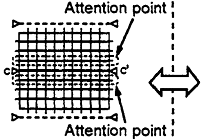
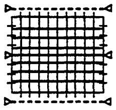
0

In particular, be aware of the setting before adjustment.

**• Adjust the Data value**



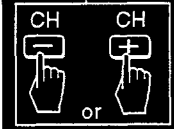
Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to – 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

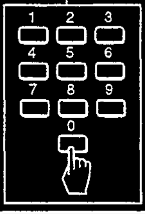
| Adjustment Item | | Cross-hatch Picture | | | Adjustment Point |
|---|---|---|---|---|---|
| | | Deviated | Optimum | Deviated | |
| Center-line Adjustment | BV - STATIC |  |  Attention point<br>c<br>c' |  | Converge the center horizontal line in the green horizontal line. |
| | BV - SKEW |  |  Attention point<br>c<br>c' |  | Adjust so that the center horizontal line is not leaned. |
| | BV - BOW |  |  Attention point<br>c<br>c' |  | Adjust so that the bowed center horizontal line at the center of the screen to a straight line. |
| Line-interval Adjustment | BV - LIN |  |  Attention point<br>c<br>c'<br>Attention point |  | Adjust so that the intervals of the horizontal lines in the upper and lower sections of the screen are symmetrically and converge them in the green horizontal lines. |
| | BV - SIZE |  |  Attention point<br>c<br>c'<br>Attention point |  | |
| | BV - SUB LIN |  |  Attention point<br>c<br>c'<br>Attention point |  | |

Note : ▷——◁ : Line which does not move at all c▷——◁c' : Center horizontal line ▶——◀ : Line which hardly moves
▷- - - -◁ : Line which does not move out of the screen

**• Select the Adjustment item**

**BV - SUB KEY**

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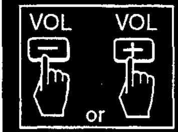
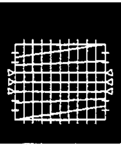
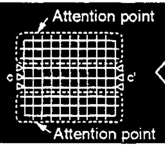
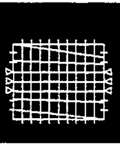
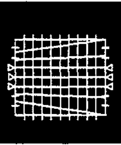
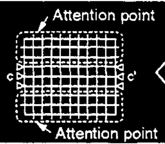
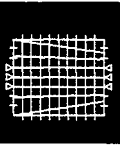
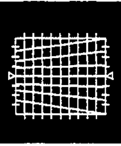
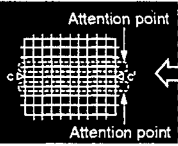
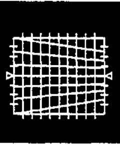
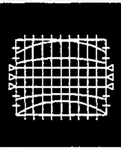
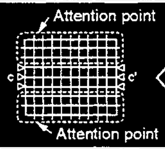
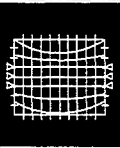
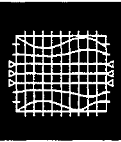
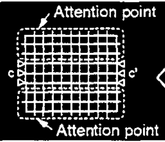
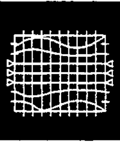
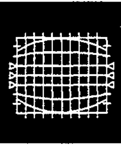
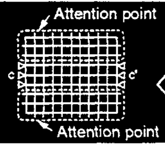
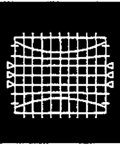
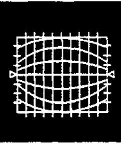
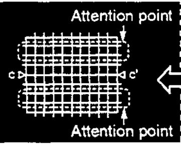
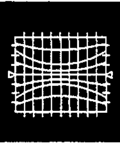
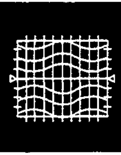
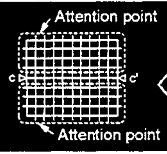
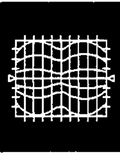
0

In particular, be aware of the setting before adjustment.

**• Adjust the Data value**

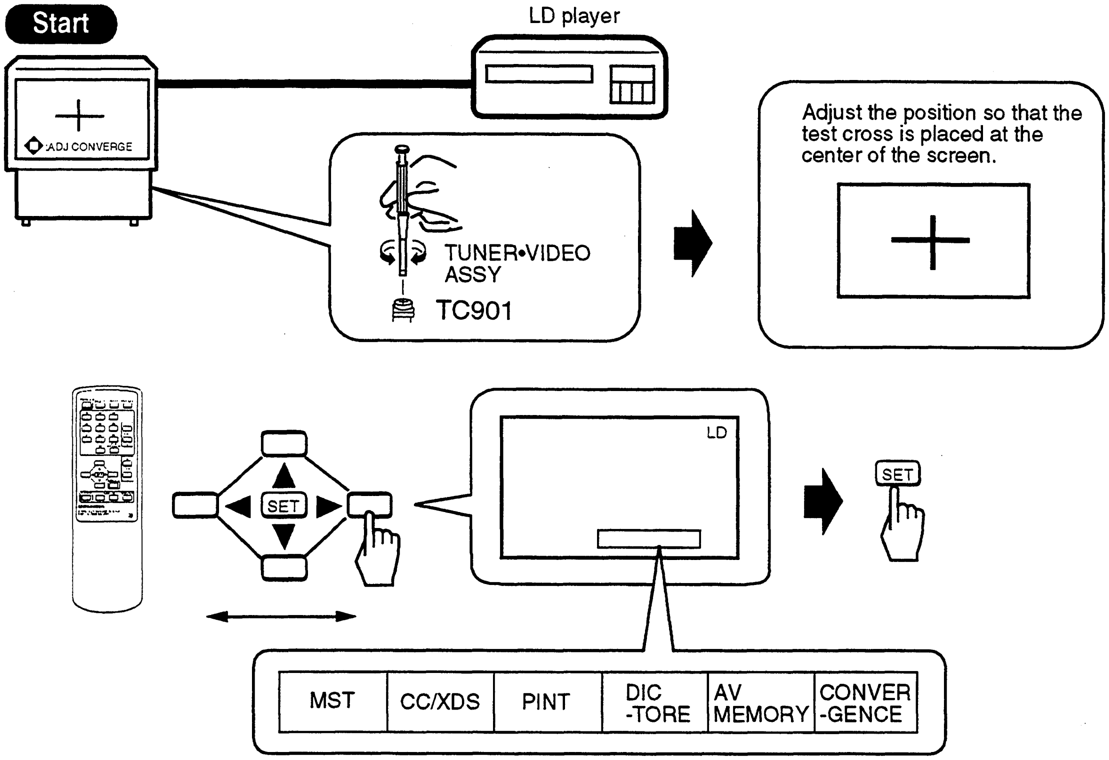


Note :
- Repeat the adjustments until you attain the optimum state.
- Fine-adjust over the entire picture to obtain the optimum picture.
- If the adjustment is not possible within the range of 010 to – 010, set the data value to 0, turn the centering magnet of the deflection yoke and fine-adjust V-STATIC.

| Adjustment Item | | Cross-hatch Picture | | | Adjustment Point |
|---|---|---|---|---|---|
| | | Deviated | Optimum | Deviated | |
| Lean Adjustment | BV - SUB KEY |  |  Attention point<br>c<br>c'<br>Attention point |  | Adjust so that the horizontal lines in the upper and lower sections of the screen are not leaned. |
| | BV - KEY |  |  Attention point<br>c<br>c'<br>Attention point |  | |
| | BV - MID KEY |  |  Attention point<br>c<br>c'<br>Attention point |  | |
| Distortion Adjustment | BV - SUB PIN |  |  Attention point<br>c<br>c'<br>Attention point |  | Adjust so that the horizontal lines in the upper and lower sections of the screen are not distorted and are straight. |
| | BV - SC PIN |  |  Attention point<br>c<br>c'<br>Attention point |  | |
| | BV - PIN |  |  Attention point<br>c<br>c'<br>Attention point |  | |
| | BV - MID PIN |  |  Attention point<br>c<br>c'<br>Attention point |  | |
| | BV - 4TH PIN |  |  Attention point<br>c<br>c'<br>Attention point |  | |

Note : ▷——◁ : Line which does not move c▷——◁c' : Center vertical line

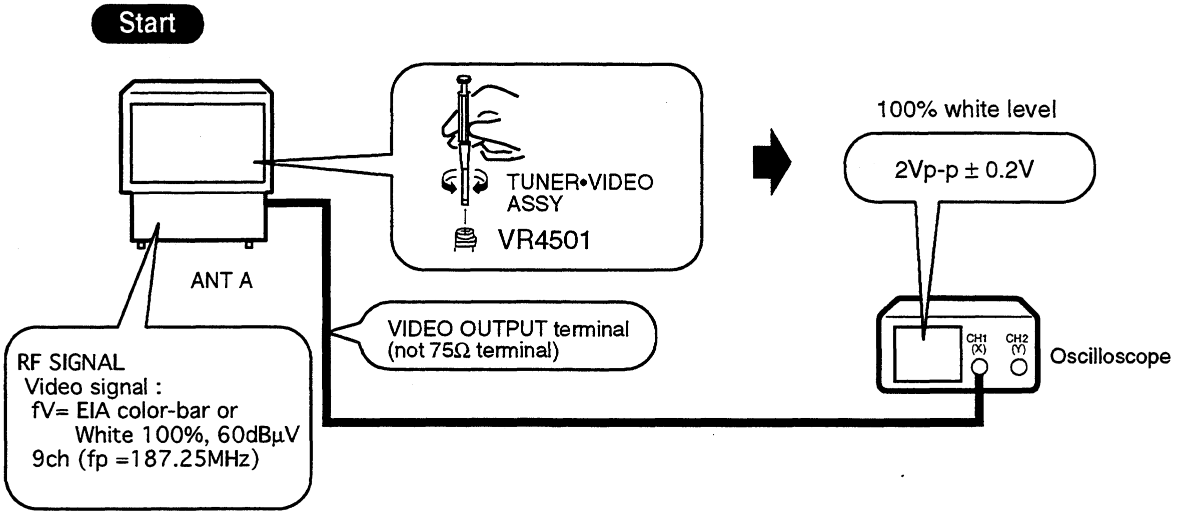
## 11 Test Cross H-center Position Adjustment


Start
LD player
:ADJ CONVERGE
TUNER•VIDEO
ASSY
TC901
SET
LD
SET
MST
CC/XDS
PINT
DIC
-TORE
AV
MEMORY
CONVER
-GENCE

Adjust the position so that the test cross is placed at the center of the screen.

## 12 Tuner Block Adjustment

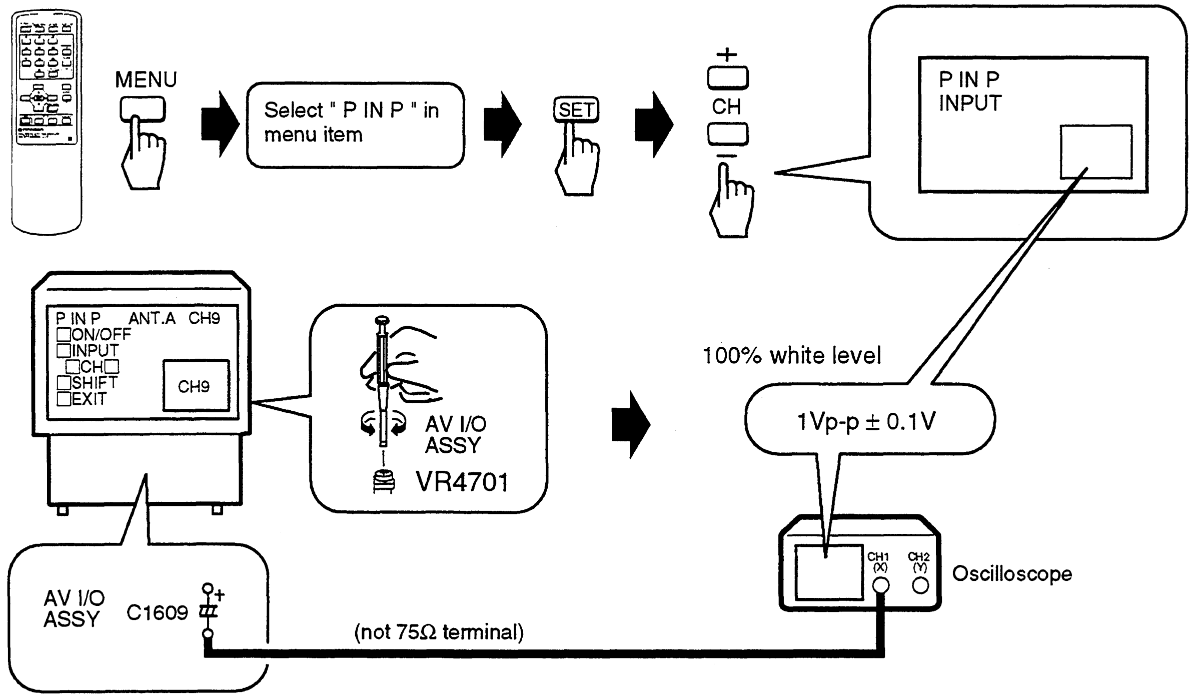
### 12-1 Video Level Adjustment ①


Start
TUNER•VIDEO
ASSY
VR4501
100% white level
2Vp-p ± 0.2V
ANT A
VIDEO OUTPUT terminal
(not 75Ω terminal)
CH1
(X)
CH2
(Y)
Oscilloscope

RF SIGNAL
Video signal :
fV= EIA color-bar or
White 100%, 60dBμV
9ch (fp =187.25MHz)

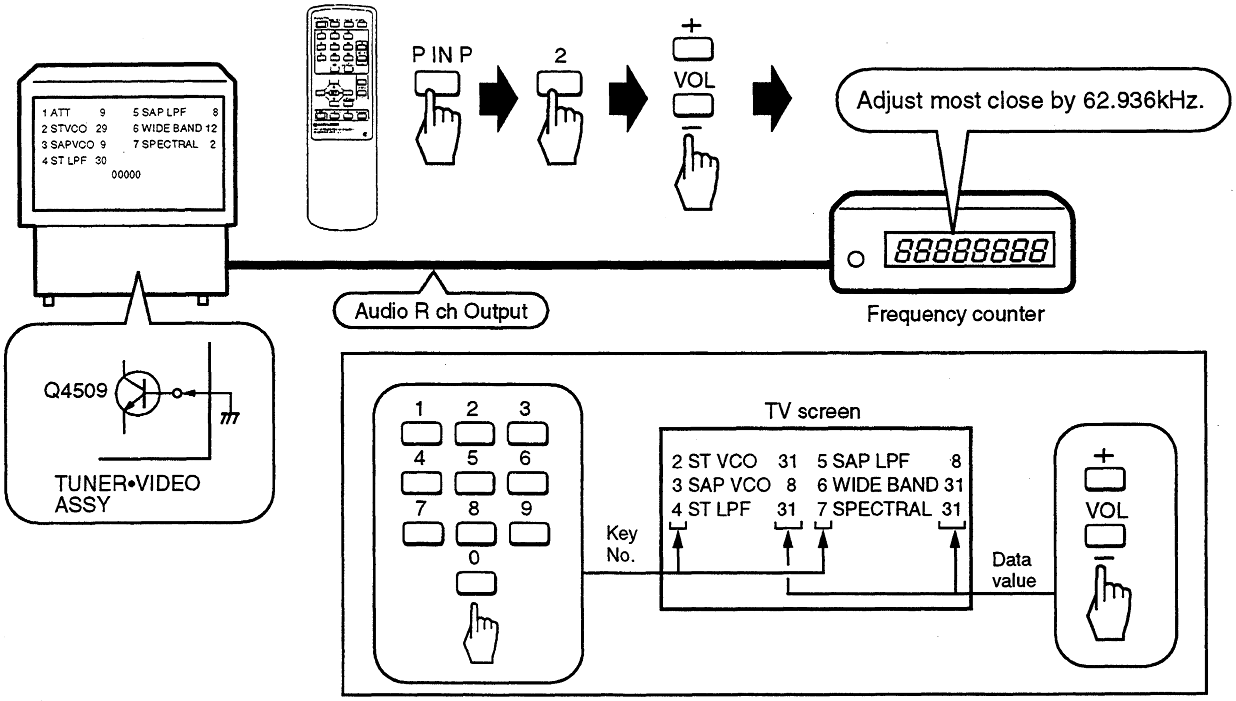
## ⑫-2 Video Level Adjustment ②

**Start**


MENU
Select " P IN P " in menu item
SET
+
CH
−
P IN P
INPUT
P IN P ANT.A CH9
☐ON/OFF
☐INPUT
☐CH☐
☐SHIFT
☐EXIT
CH9
AV I/O ASSY
VR4701
100% white level
1Vp-p ± 0.1V
CH1 (X)
CH2 (Y)
Oscilloscope
AV I/O ASSY
C1609
(not 75Ω terminal)

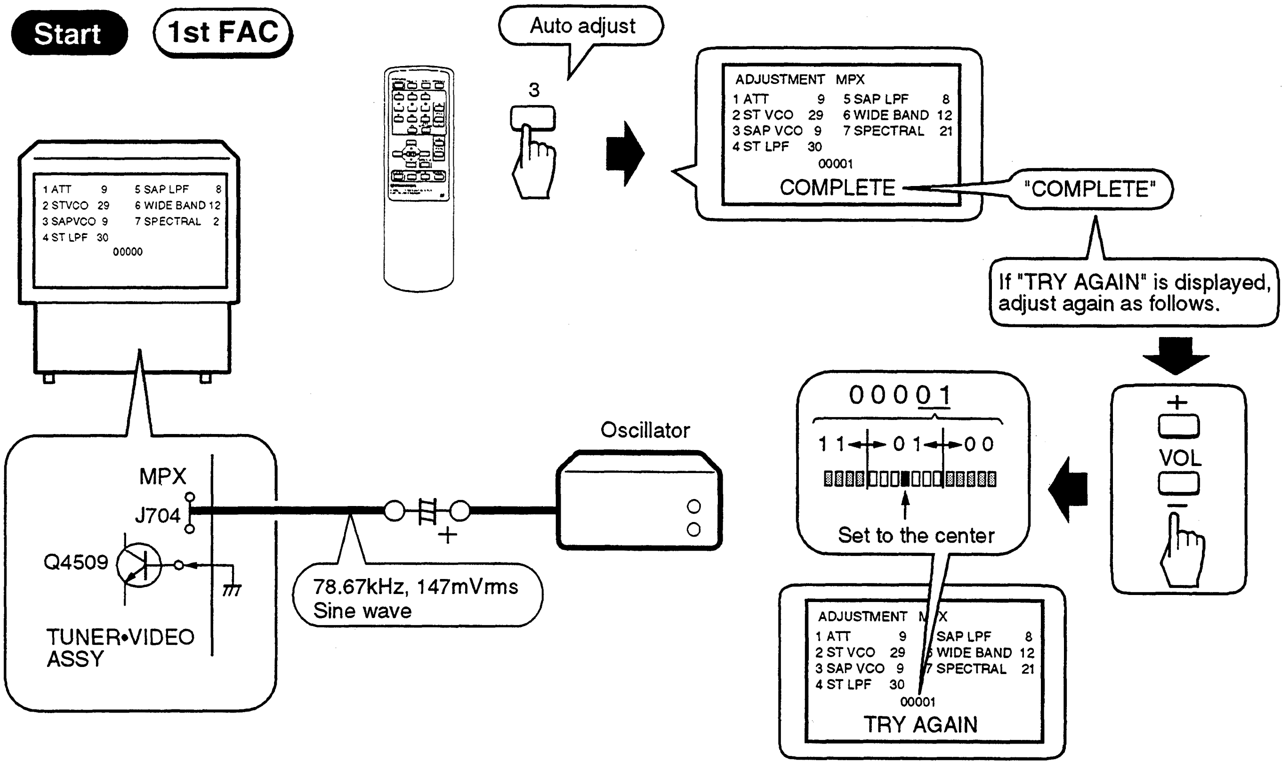
## ⑫-3 Stereo VCO Adjustment

**Start** **1st FAC**


1 ATT 9
2 STVCO 29
3 SAPVCO 9
4 ST LPF 30
5 SAP LPF 8
6 WIDE BAND 12
7 SPECTRAL 2
00000
P IN P
2
+
VOL
−
Adjust most close by 62.936kHz.
88888888
Frequency counter
Audio R ch Output
Q4509
TUNER•VIDEO ASSY
1 2 3
4 5 6
7 8 9
0
TV screen
2 ST VCO 31
3 SAP VCO 8
4 ST LPF 31
5 SAP LPF 8
6 WIDE BAND 31
7 SPECTRAL 31
Key No.
Data value
+
VOL
−

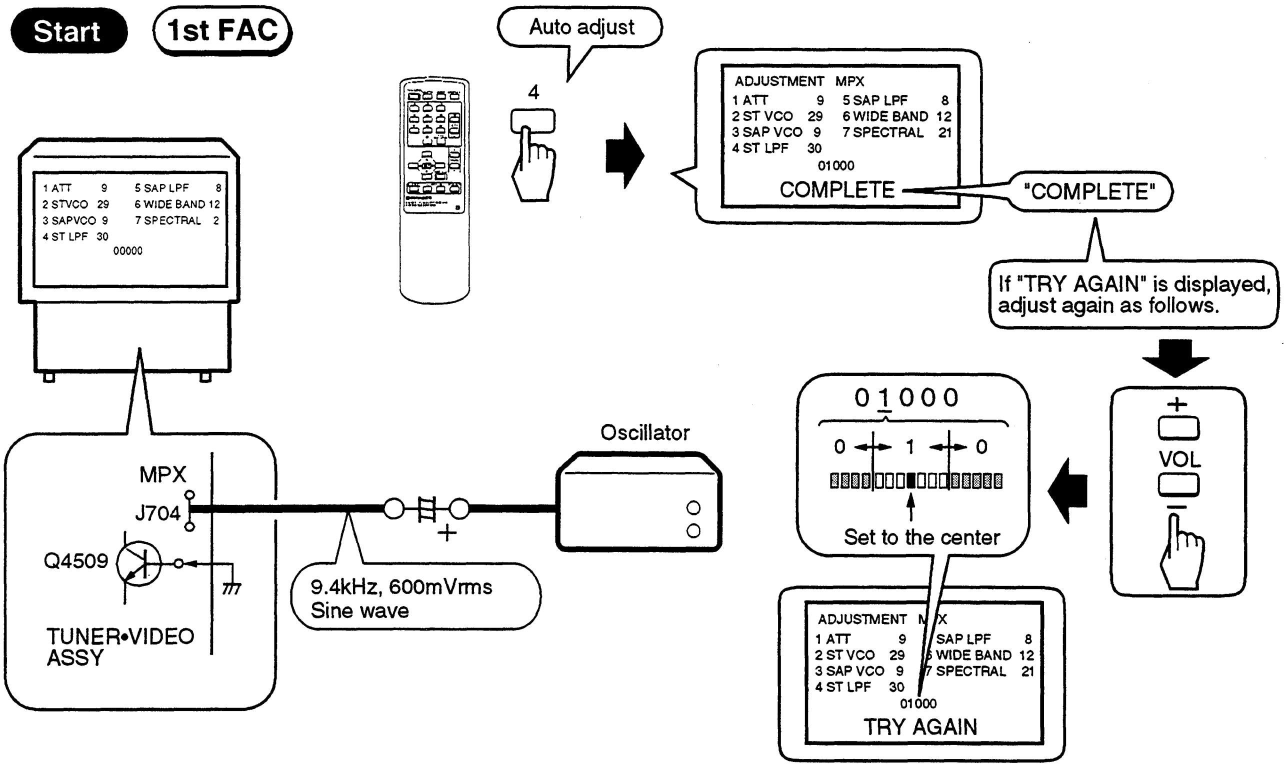
## ⑫-4 SAP VCO Adjustment

Note : • Perform this adjustment after the ⑫ -3 adjustment.


Start
1st FAC
Auto adjust
3
ADJUSTMENT MPX
1 ATT 9 5 SAP LPF 8
2 ST VCO 29 6 WIDE BAND 12
3 SAP VCO 9 7 SPECTRAL 21
4 ST LPF 30
00001
COMPLETE
"COMPLETE"
If "TRY AGAIN" is displayed, adjust again as follows.
1 ATT 9 5 SAP LPF 8
2 STVCO 29 6 WIDE BAND 12
3 SAPVCO 9 7 SPECTRAL 2
4 ST LPF 30
00000
00001
1 1 0 1 0 0
Set to the center
+
VOL
−
Oscillator
MPX
J704
Q4509
TUNER•VIDEO ASSY
+
78.67kHz, 147mVrms Sine wave
ADJUSTMENT MPX
1 ATT 9 5 SAP LPF 8
2 ST VCO 29 6 WIDE BAND 12
3 SAP VCO 9 7 SPECTRAL 21
4 ST LPF 30
00001
TRY AGAIN

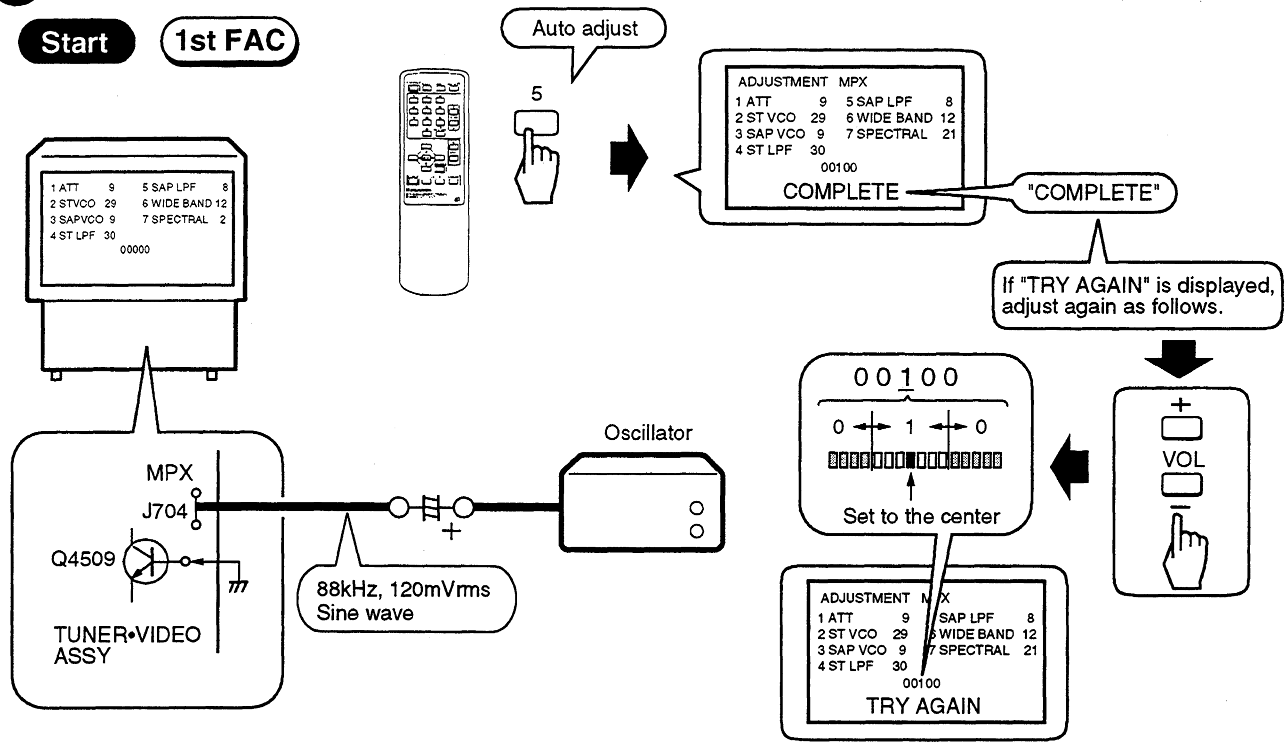
## ⑫-5 STEREO LPF Adjustment

Note : • Perform this adjustment after the ⑫ -4 adjustment.


Start
1st FAC
Auto adjust
4
ADJUSTMENT MPX
1 ATT 9 5 SAP LPF 8
2 ST VCO 29 6 WIDE BAND 12
3 SAP VCO 9 7 SPECTRAL 21
4 ST LPF 30
01000
COMPLETE
"COMPLETE"
If "TRY AGAIN" is displayed, adjust again as follows.
1 ATT 9 5 SAP LPF 8
2 STVCO 29 6 WIDE BAND 12
3 SAPVCO 9 7 SPECTRAL 2
4 ST LPF 30
00000
01000
0 1 0
Set to the center
+
VOL
−
Oscillator
MPX
J704
Q4509
TUNER•VIDEO ASSY
+
9.4kHz, 600mVrms Sine wave
ADJUSTMENT MPX
1 ATT 9 5 SAP LPF 8
2 ST VCO 29 6 WIDE BAND 12
3 SAP VCO 9 7 SPECTRAL 21
4 ST LPF 30
01000
TRY AGAIN

## ⑫-6 SAP LPF Adjustment

Note : • Perform this adjustment after the ⑫ -5 adjustment.


Start
1st FAC
Auto adjust
5
"COMPLETE"
00100
0 1 0
Set to the center
VOL
+
−
Oscillator
MPX
J704
Q4509
TUNER•VIDEO ASSY
88kHz, 120mVrms Sine wave

```
1 ATT     9    5 SAP LPF    8
2 STVCO  29    6 WIDE BAND 12
3 SAPVCO  9    7 SPECTRAL   2
4 ST LPF 30
         00000
```

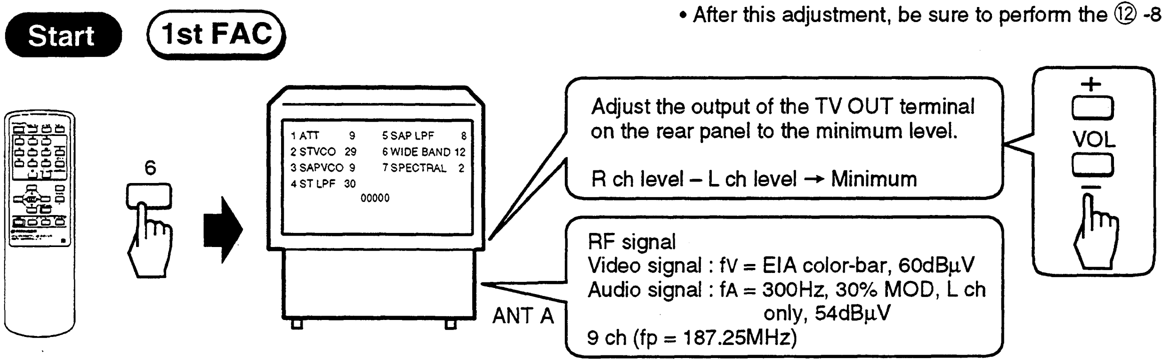
```
ADJUSTMENT  MPX
1 ATT       9    5 SAP LPF     8
2 ST VCO   29    6 WIDE BAND  12
3 SAP VCO   9    7 SPECTRAL   21
4 ST LPF   30
           00100
COMPLETE
```

If "TRY AGAIN" is displayed, adjust again as follows.

```
ADJUSTMENT  MPX
1 ATT       9    5 SAP LPF     8
2 ST VCO   29    6 WIDE BAND  12
3 SAP VCO   9    7 SPECTRAL   21
4 ST LPF   30
           00100
TRY AGAIN
```

## ⑫-7 Separation Adjustment (WIDE BAND)

Note :
- Perform this adjustment after the ⑫ -6 adjustment.
- After this adjustment, be sure to perform the ⑫ -8 adjustment.


Start
1st FAC
6
ANT A
VOL
+
−

```
1 ATT     9    5 SAP LPF    8
2 STVCO  29    6 WIDE BAND 12
3 SAPVCO  9    7 SPECTRAL   2
4 ST LPF 30
         00000
```

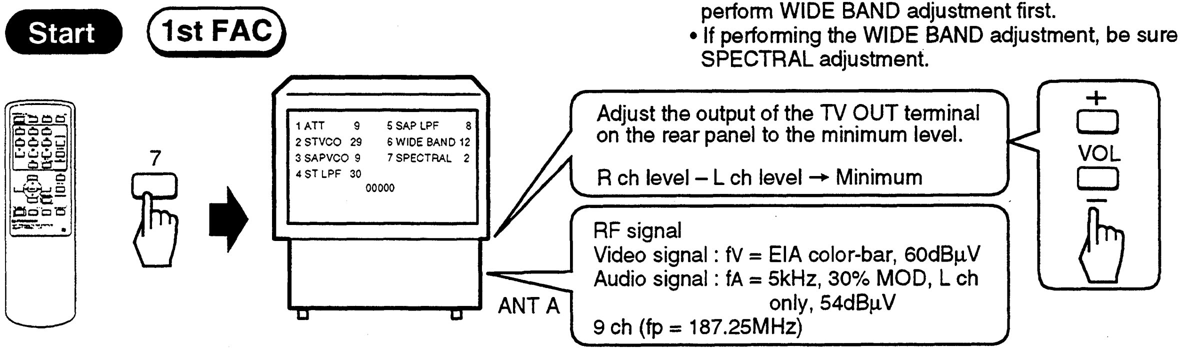
Adjust the output of the TV OUT terminal on the rear panel to the minimum level.

R ch level – L ch level → Minimum

RF signal
Video signal : fV = EIA color-bar, 60dBµV
Audio signal : fA = 300Hz, 30% MOD, L ch only, 54dBµV
9 ch (fp = 187.25MHz)

## ⑫-8 Separation Adjustment (SPECTRAL)

Note :
- Repeat step ⑫ -7 and ⑫ -8 till the best separation.
- When performing the separation adjustment, be sure to perform WIDE BAND adjustment first.
- If performing the WIDE BAND adjustment, be sure to perform SPECTRAL adjustment.


Start
1st FAC
7
ANT A
VOL
+
−

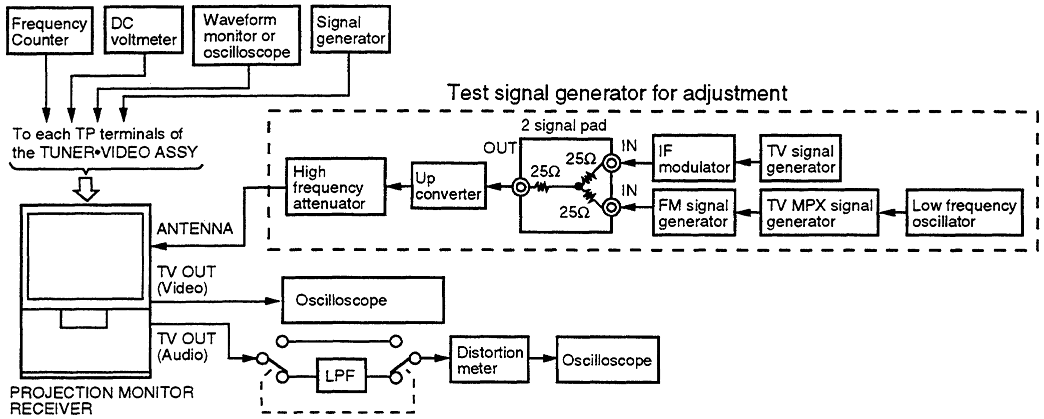
```
1 ATT     9    5 SAP LPF    8
2 STVCO  29    6 WIDE BAND 12
3 SAPVCO  9    7 SPECTRAL   2
4 ST LPF 30
         00000
```

Adjust the output of the TV OUT terminal on the rear panel to the minimum level.

R ch level – L ch level → Minimum

RF signal
Video signal : fV = EIA color-bar, 60dBµV
Audio signal : fA = 5kHz, 30% MOD, L ch only, 54dBµV
9 ch (fp = 187.25MHz)

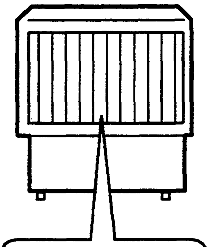
## ● Connection diagram for adjusting the tuner section :


Frequency Counter
DC voltmeter
Waveform monitor or oscilloscope
Signal generator
Test signal generator for adjustment
To each TP terminals of the TUNER•VIDEO ASSY
2 signal pad
OUT
IN
IN
25Ω
25Ω
25Ω
High frequency attenuator
Up converter
IF modulator
TV signal generator
FM signal generator
TV MPX signal generator
Low frequency oscillator
ANTENNA
TV OUT (Video)
Oscilloscope
TV OUT (Audio)
LPF
Distortion meter
Oscilloscope
PROJECTION MONITOR RECEIVER

LPF : 100Hz to 10kHz : $^{+0}_{-0.5}$ dB
15.75kHz to 100kHz : less than -40dB

## ⑬ White Balance Adjustment

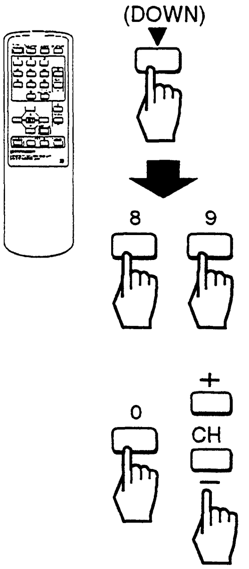
**Start** **1st FAC**



Color-bar signal without color signal

Adjust the DRV-G and DRV-B so that the bright part of the screen becomes white.

Adjust the CUT-R and CUT-B so that the dark part of the screen become gray.



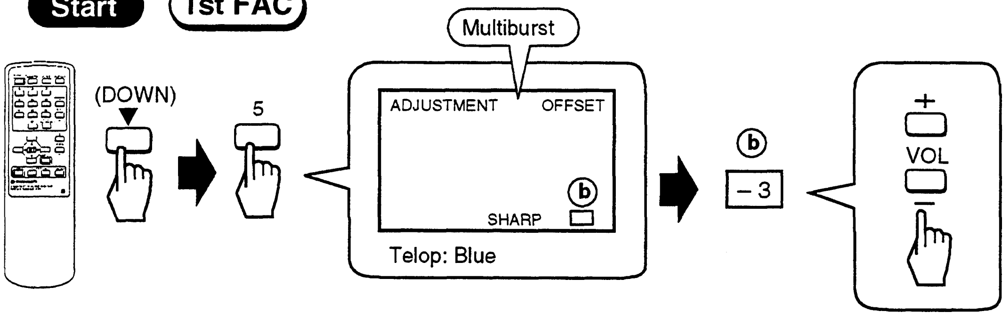
8 : DRV-G
9 : DRV-B

0 : CUT-R
CH + : CUT-G
CH − : CUT-B

## ⑭ PIONEER's Standard Settings

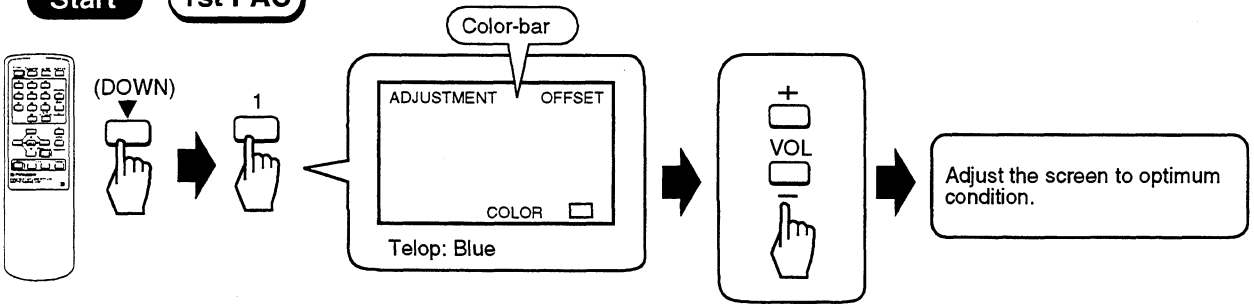
### ⑭-1 Sharpness Adjustment

**Start** **1st FAC**


Multiburst
(DOWN)
5
ADJUSTMENT
OFFSET
ⓑ
SHARP
Telop: Blue
ⓑ
− 3
+
VOL
−

### ⑭-2 Color Adjustment

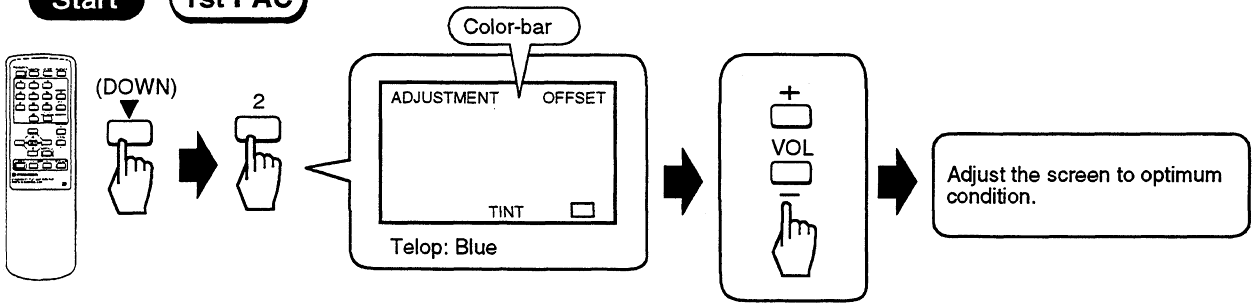
**Start** **1st FAC**


Color-bar
(DOWN)
1
ADJUSTMENT
OFFSET
COLOR
Telop: Blue
+
VOL
−

Adjust the screen to optimum condition.

### ⑭-3 Tint Adjustment

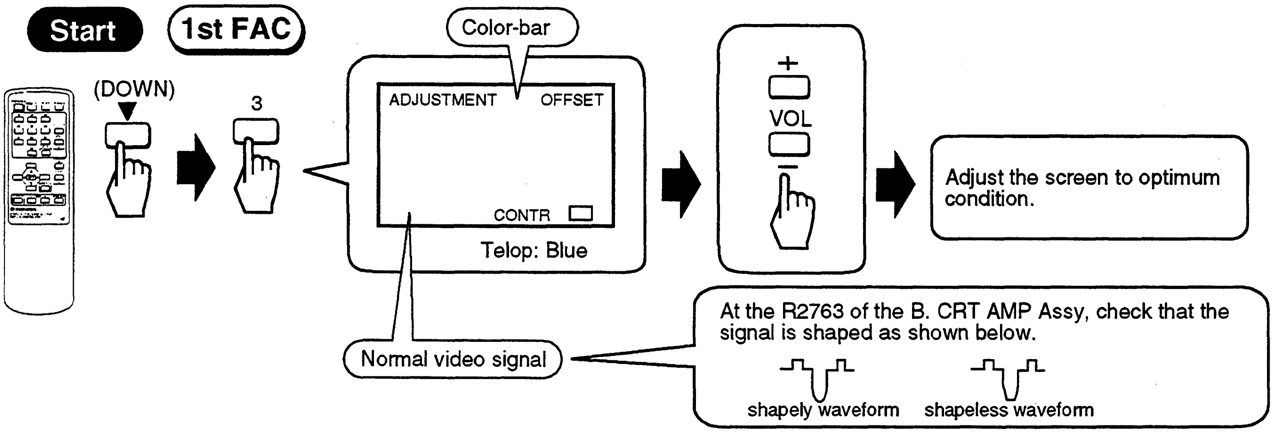
**Start** **1st FAC**


Color-bar
(DOWN)
2
ADJUSTMENT
OFFSET
TINT
Telop: Blue
+
VOL
−

Adjust the screen to optimum condition.

### ⑭-4 Contrast Adjustment

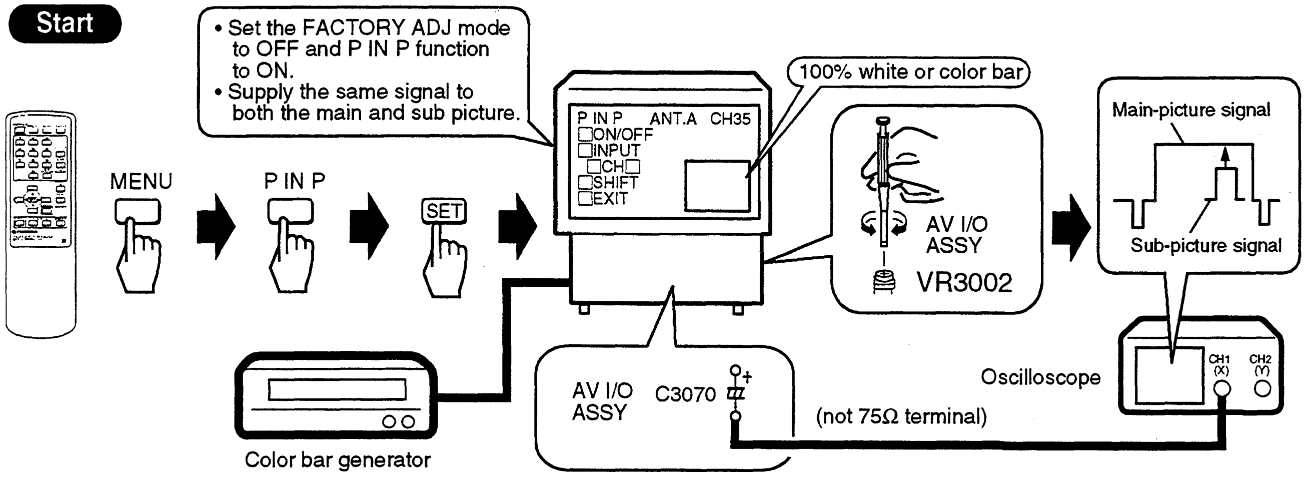
**Start** **1st FAC**


Color-bar
(DOWN)
3
ADJUSTMENT
OFFSET
CONTR
Telop: Blue
+
VOL
−
Normal video signal
shapely waveform
shapeless waveform

Adjust the screen to optimum condition.

At the R2763 of the B. CRT AMP Assy, check that the signal is shaped as shown below.

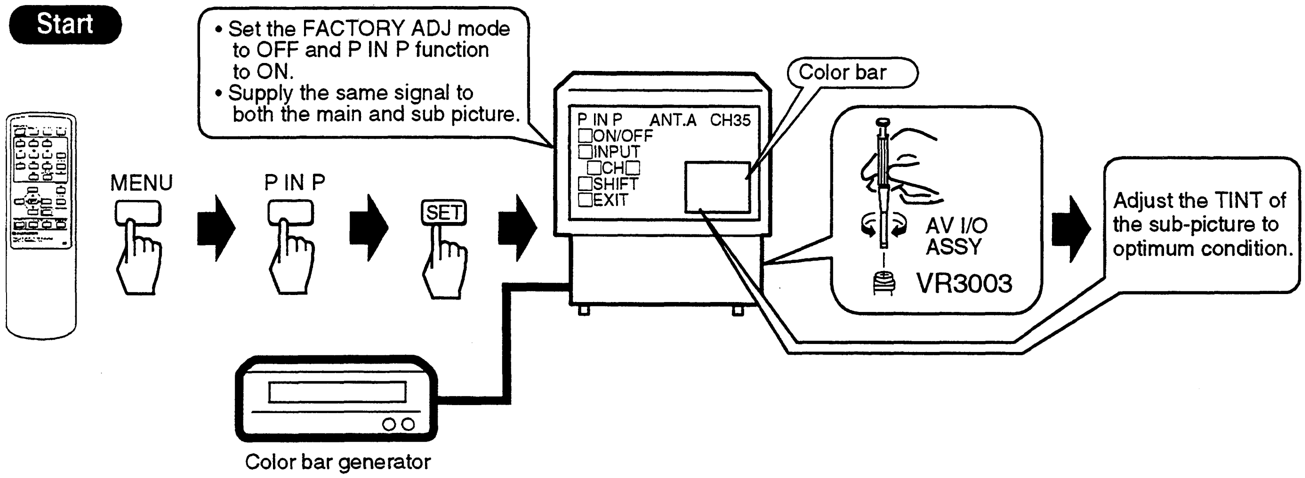
## ⑮ Y-signal Level Adjustment of Sub-picture (Adjustment for P IN P)



- Set the FACTORY ADJ mode to OFF and P IN P function to ON.
- Supply the same signal to both the main and sub picture.

Start
MENU
P IN P
SET
P IN P ANT.A CH35
☐ON/OFF
☐INPUT
☐CH☐
☐SHIFT
☐EXIT
100% white or color bar
AV I/O ASSY
VR3002
Main-picture signal
Sub-picture signal
AV I/O ASSY
C3070
Oscilloscope
CH1 (X)
CH2 (Y)
(not 75Ω terminal)
Color bar generator

## ⑯ TINT Adjustment of Sub-picture (Adjustment for P IN P)

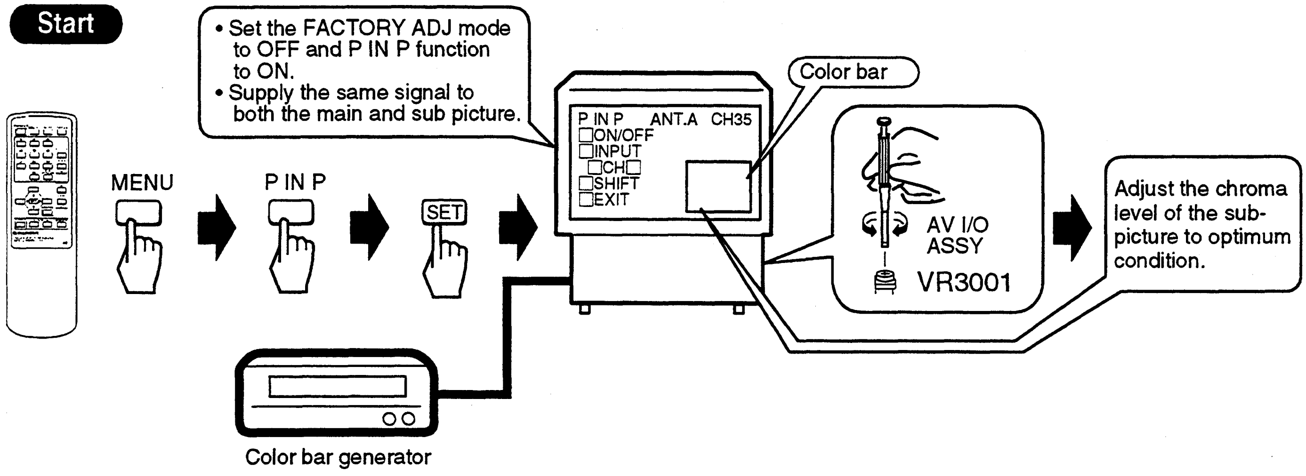


- Set the FACTORY ADJ mode to OFF and P IN P function to ON.
- Supply the same signal to both the main and sub picture.

Adjust the TINT of the sub-picture to optimum condition.

Start
MENU
P IN P
SET
P IN P ANT.A CH35
☐ON/OFF
☐INPUT
☐CH☐
☐SHIFT
☐EXIT
Color bar
AV I/O ASSY
VR3003
Color bar generator

## ⑰ Chroma Level Adjustment of Sub-picture (Adjustment for P IN P)



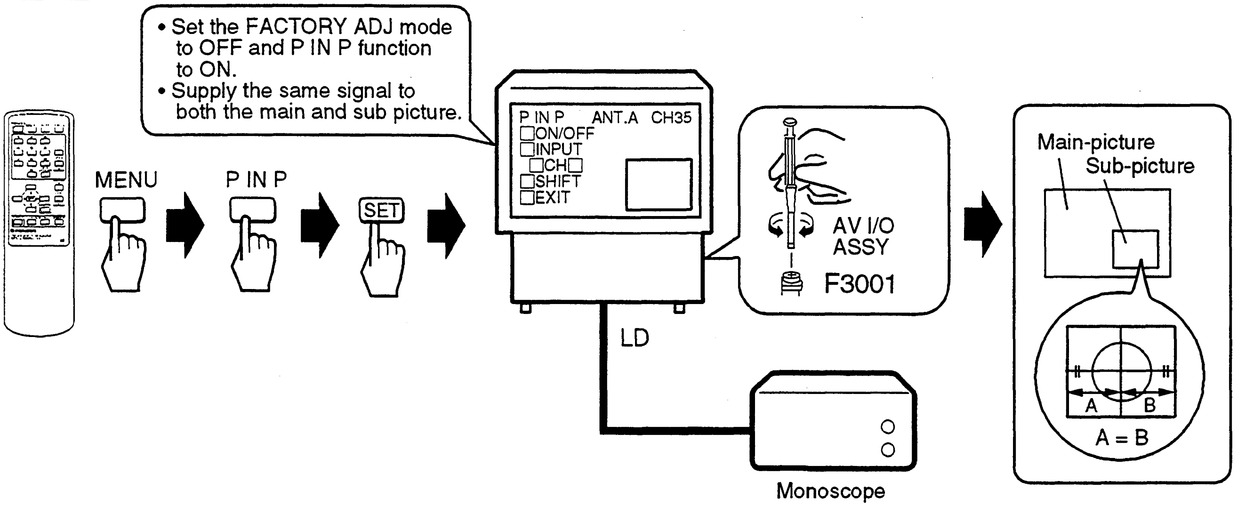
- Set the FACTORY ADJ mode to OFF and P IN P function to ON.
- Supply the same signal to both the main and sub picture.

Adjust the chroma level of the sub-picture to optimum condition.

Start
MENU
P IN P
SET
P IN P ANT.A CH35
☐ON/OFF
☐INPUT
☐CH☐
☐SHIFT
☐EXIT
Color bar
AV I/O ASSY
VR3001
Color bar generator

## ⑱ Write Clock Adjustment of Sub-picture (Adjustment for P IN P)

**Start**

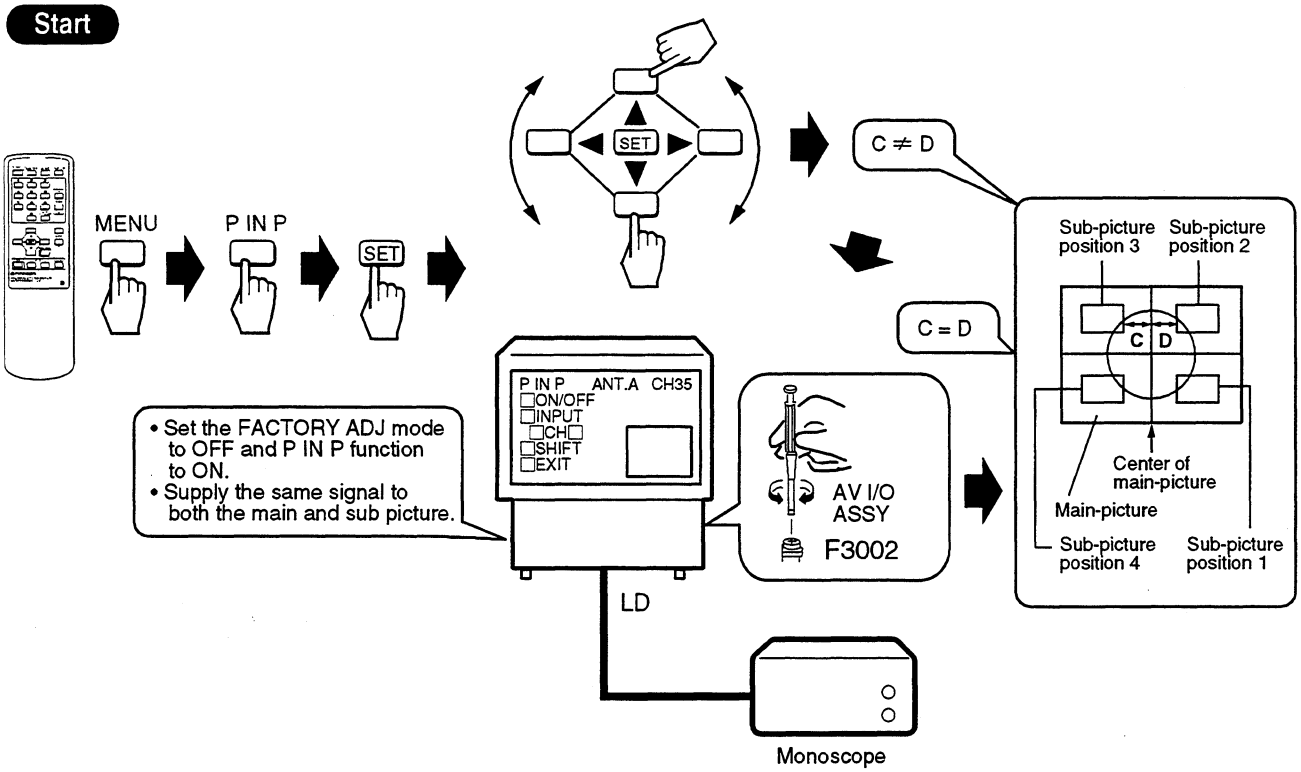


- Set the FACTORY ADJ mode to OFF and P IN P function to ON.
- Supply the same signal to both the main and sub picture.

MENU
P IN P
SET
P IN P ANT.A CH35
☐ON/OFF
☐INPUT
☐CH☐
☐SHIFT
☐EXIT
AV I/O ASSY
F3001
LD
Monoscope
Main-picture
Sub-picture
A
B
A = B

## ⑲ Read Clock Adjustment of Sub-picture (Adjustment for P IN P)

**Start**



- Set the FACTORY ADJ mode to OFF and P IN P function to ON.
- Supply the same signal to both the main and sub picture.

MENU
P IN P
SET
SET
C ≠ D
C = D
Sub-picture position 3
Sub-picture position 2
C
D
Center of main-picture
Main-picture
Sub-picture position 4
Sub-picture position 1
P IN P ANT.A CH35
☐ON/OFF
☐INPUT
☐CH☐
☐SHIFT
☐EXIT
AV I/O ASSY
F3002
LD
Monoscope

# 7. GENERAL INFORMATION

## 7.1 PARTS

### 7.1.1 IC

- The information shown in the list is basic information and may not correspond exactly to that shown in schematic diagrams.

### ■ PD5395A ( TUNER•VIDEO ASSY : IC901)

- **System Control Microcomputer**

- **Pin Function**

| No. | Pin Name | I/O | Active | Function |
|---|---|---|---|---|
| 1 | H BLK | I | H | Sync. signal input for OSD |
| 2 | V BLK | I | H | |
| 3 | KEY | I | — | Main unit key scan signal input<br>Analog voltage input |
| 4 | REMOTE | I | L | Remote control signal input<br>Decipher the PIONEER's SR signal |
| 5 | H SYNC1 | I | — | H. sync. count input for tuner 1 reception<br>When number of H-SYNC lasts eight rounds of continuation by a state of 12 - 18 during 1 msec, it judges the broadcast to be it. When other state lasts six rounds of continuation, it judge it to be broadcast nothing. |
| 6 | H SYNC2 | I | — | H. sync. count input for tuner 2 reception |
| 7 | AFT1 | Ci | — | AFT analog voltage input for tuner 1 |
| 8 | AFT2 | Ci | — | AFT analog voltage input for tuner 2 |
| 9 | N.C | — | — | Non connection |
| 10 | V. MUTE | Co | H | Video mute output (Input signal switch, power ON / OFF etc.) |
| 11 | H.SIZE.ADJ | No | H | PWM output for H. deflection size control |
| 12 | CONV MUTE | No | L | Mute output for convergence amp IC (STK392-110) H:OFF , L:ON |
| 13 | BASS SW | No | L | Not used (Bass boost switching signal output H:OFF, L:ON) |
| 14 | N.C | — | — | Non connection |
| 15 | V.SIZE.ADJ | No | H | PWM output for V. deflection size control |
| 16 | PIP.RST | No | H | Reset signal output for P IN P IC (HD49420FS) H:ON , L:OFF |
| 17 | SRR.SW | Co | H | Switching signal output for matrix surround H:ON , L:OFF |
| 18 | PORT W1 | No | — | Not used (Pulse output for checking microcomputer operation) |
| 19 | N.C | — | — | Non connection |
| 20 | CONV.ENB | No | L | Data enable signal output of convergence IC (PM0011A) |
| 21 | OPTION | Ni | — | Not used |
| 22 | PIP.ENB | No | H | Data enable signal output for P IN P IC |
| 23 | S.OX | Ni | — | Not used (Signal input for S input detection H:COMP. V input , L:Y/C input ) |
| 24 | AVCC | — | — | Analog power supply Apply +5V. |
| 25 | HLF | — | — | Connect the external parts for CCD timing signal generating circuit |
| 26 | RVCO | — | — | |
| 27 | VHOLD | — | — | Connect the external parts for CCD reference voltage generating circuit |
| 28 | CVIN | I | — | Video signal input for CCD (2.0Vp-p) |
| 29 | CNVSS | I | — | Connect to Vss |
| 30 | XIN | I | — | Input / Output pins of main clock generating circuit Connect a 8.0MHz ceramic oscillator. |
| 31 | XOUT | Co | — | |
| 32 | VSS | — | — | Supplies 0V to Vss. |
| 33 | VCC | — | — | +5V power supply |
| 34 | OSC1 | I | — | Clock input / output for display |
| 35 | OSC2 | Co | — | |
| 36 | RESET | I | L | System reset Reset when L is input for more than 0.95μsec. (OSC=4.19MHz) |
| 37 | PF2/ N.C | Co | — | P IN P sub-picture switching signal |
| 38 | PF1/ N.C | Co | — | |
| 39 | INP2/ N.C | Co | — | P IN P main-picture switching signal |
| 40 | INP1 / D.RST | Co /Ci | — | P IN P main-picture switching signal |
| 41 | ANT SW. | Co | — | Antenna input A and B switching signal<br>H:ANT. A , L:ANT. B |
| 42 | SDA | Ni/o | H | $I^2C$ serial data input/output |
| 43 | (E)SDA | Ni/o | H | $I^2C$ serial data input/output (for $E^2ROM$) |
| 44 | VM.MUTE | No | H | Velocity modulation switching signal output H:ON , L:OFF |
| 45 | SCL | Ni/o | H | $I^2C$ serial transfer clock |
| 46 | N.C | — | — | Non connection |
| 47 | (E)SCL | Ni/o | H | $I^2C$ serial clock input/output (for $E^2ROM$) |
| 48 | V.RST | No | H | Not used |
| 49 | DATA | Co | L | Serial data output (P IN P, convergence) |
| 50 | CLK | Co | L | Serial clock output (P IN P, convergence) |
| 51 | A MUTE | Co | H | Audio mute output H:ON, L:OFF |
| 52 | ROM RST | Co | H | Reset output for $E^2PROM$ |
| 53 | AC CLK | Ci | H | AC clock detection input Use for AC power OFF detection (Reset process for three AC wave are lacked) |
| 54 | PORT W2 | No | — | Not used (Pulse output for checking microcomputer operation) |
| 55 | RELAY | No | L | Power supply relay control signal output H:OFF, L:ON |
| 56 | N.C | — | — | Non connection |
| 57 | LIN.WHITE | No | H | PWM output for linear white level control |
| 58 | C.C.MUTE | No | H | Not used |
| 59 | VOLUME | No | H | PWM output for audio level control |
| 60 | N.C | — | — | Non connection |
| 61 | OSD BLK | Co | H | Signal output for OSD mute and velocity modulation mute |
| 62 | OSD B | Co | H | Video output for OSD |
| 63 | OSD G | Co | | |
| 64 | OSD R | Co | | |

I:Input O:Output Ci:CMOS input Co:CMOS output No:N ch open-drain output Ni:N ch open-drain input

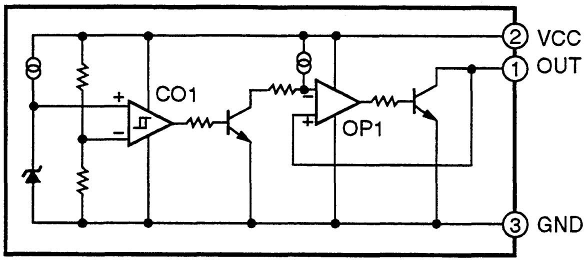
- **Main-picture and P IN P sub-picture switching signal logic**

| FUNCTION | Main-picture | | Sub-picture | |
|---|---|---|---|---|
| | INP1 | INP2 | PF1 | PF2 |
| LD/DVD | H | H | H | H |
| VIDEO | L | H | L | H |
| VIDEO F. | H | L | H | L |
| TV | L | L | L | L |

## ■ PST9146 ( TUNER•VIDEO ASSY : IC903)

- **System Reset IC**

- **Block Diagram**

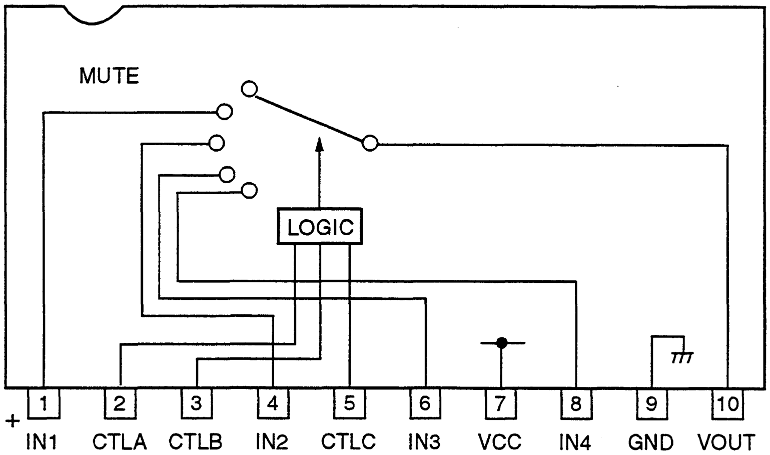


CO1
OP1
2 VCC
1 OUT
3 GND

## ■ BA7644AN ( AV I/O ASSY : IC1602, IC1603)

- **Video and Audio Signal Switch**

- **Block Diagram**



MUTE
LOGIC
1
2
3
4
5
6
7
8
9
10
+
IN1
CTLA
CTLB
IN2
CTLC
IN3
VCC
IN4
GND
VOUT

- **Truth Table**

| Pin No. | 2 | 3 | 5 | 10 |
|---|---|---|---|---|
| — | CTLA | CTLB | CTLC | VOUT |
| 1 | L(OPEN) | L(OPEN) | L(OPEN) | IN1 |
| 4 | L(OPEN) | H | L(OPEN) | IN2 |
| 6 | H | L(OPEN) | L(OPEN) | IN3 |
| 8 | H | H | L(OPEN) | IN4 |
| — | * | * | H | MUTE |

* : Either L (OPEN) or H approve